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THE PALACE OF KNOSSOS.

Provisional Report of the Excavations for the Year 1902.

[PLATES I—III.]

§ 1.—THE CAMPAIGN OF 1902.

AS far as it was possible to forecast the Campaign of 1902 on the Palace site of Knossos it promised to be one of finishing up in a limited quarter of the East Slope, with some further delimitation of already fairly ascertained boundaries. But appearances were deceptive. Not only did the work of excavating the remainder of the deep-lying rooms of the Central part of this quarter prove to be of extraordinary difficulty, owing to the masses of heavy superstructures that it was necessary to support, but the building was found to extend further down the slope than the preliminary trial pits had led us to expect. In several cases these had just missed important walls, with the result that vast masses of excavated materials had, towards the close of the previous campaign, been dumped down in places from which they had this year to be removed at the cost of much labour. It was also found that several of the chambers previously excavated along the edge of the second East Slope Terrace—notably those near the Olive Press—overlaid basement areas containing important remains, and these, in turn, the floor levels of a still earlier Palace, covered with pottery of the pure 'Kamáres' class. On the lower Terrace again were brought to light whole ranges of rooms and magazines belonging to this more primitive system and containing what are probably the finest existing specimens of the 'Middle Minoan' ceramic class.

The work began on February 12, and continued in full swing till the end of June. The extensive character of the operations may be judged from the fact that during a good deal of this time as many as 250 workmen were employed. The arduous labour of propping up walls, raising sunken blocks, supporting upper floor-levels (see Fig. 1), and reconstructing

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fallen masses of pavement necessitated the constant services of over a score of carpenters and masons. The purchase and transport of the timber, brick, iron, and other materials required for this work also entailed a serious expenditure. The conservation of such unexampled remains of upper stories existing *in situ* seemed, however, to be a first duty of the excavator and it may at least be said that no labour or expense has been spared to preserve this evidence. The result has been that throughout the whole central area of the Eastern quarter of the Palace the upper rooms,

Doorway of Lower East-West Corridor



FIG. 1.—VIEW FROM FOOT OF QUADRUPLE STAIRCASE LOOKING EAST ALONG PORTICO OF HALL OF COLONNADES.

with their door-blocks, pillar-bases, and large parts even of their pavements, have been firmly secured in their original position.

Pari passu with the opening up of new ground the work of testing and revision was continued in the parts of the site already excavated. Such re-examination has necessarily entailed a certain amount of rectification in plans and conclusions set forth in preceding Reports, a fact which may serve to emphasize the provisional character of the summary accounts given in these pages of successive season's works. In

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the quarter about the Northern Entrance, particularly, further investigations and the removal of what proved to be later walls have led to altogether new developments, including the discovery of a spacious outer portico.

In directing the works I had, as before, the valued assistance of Dr. Duncan Mackenzie, who is also engaged on a special study of the pottery found in the Palace.¹ I was also fortunate in again securing the services of Mr. Theodore Fyfe for the architectural plans and necessary works of conservation, and he has at my request communicated a paper on the decorative frescoes and architectural reliefs to the Royal Institute of British Architects.² The practical work, especially that of raising and supporting large blocks, was also much aided by the presence this year as foreman of the works of Gregorios Antoniou, so well known for his most capable exercise of similar functions for a succession of British excavations in Cyprus as well as for Mr. Hogarth in the Dictæan Cave and at Zakro.

§ 2.—SUPPLEMENTARY DISCOVERIES IN THE NORTHERN PALACE REGION: ENTRANCE PORTICO AND EXTERNAL PILLAR-HALL

In the exceptionally massive square of constructions that lie to right of the Northern Entrance passage as approached from without, between the North Piazza and the Central Court, further researches and excavations did much to bring out the original lines of the building which had been greatly obscured by later walls. The plan as thus recovered was really much simpler. The double door from the North Piazza was found to give access to a kind of oblong atrium, the back part of which must have been connected to the right with an ascending stepped corridor that leads South to the Corridor of the Stone Basin. A direct and convenient line of communication would thus have been provided between the antechamber of the Throne Room and the North-West corner of the Central Court on the one side and the North Piazza and adjoining Bath system on the other. (See Sketch Plan, Pl. I.)

The square enclosed between the upper part of this connecting passage and the Northern Entrance way was divided into three elongated ground-floor rooms, with floor levels a little below the level of the Central

¹ To appear in the forthcoming number of the *Journal of Hellenic Studies*.

² 'Painted plaster decoration at Knossos,' *Journal of the R. Inst. of British Architects*, Third Series, Vol. X. (No. 4), p. 107 *seqq.* Mr. Fyfe has executed the Architectural Plans in this Report.

Court. These rooms, as the important remains of wall-paintings found above their floors sufficiently indicate, had originally supported a fine upper hall to which unquestionably belonged the miniature and other frescoes found here above the lower floors. The three ground-floor rooms in question had, as already shown, been subsequently re-occupied with slightly raised floor levels, during the mature Mycenaean Period, and a good deal remodelled. The Westernmost of the original three chambers had in this way been broken up into two smaller rooms belonging to this Period of Re-occupation, in one of which the stirrup-vases were found.

Each of the three elongated chambers mentioned above has at its Northern end one of the deep, walled pits described in the last Report, resembling the 'oubliettes' of a mediaeval castle, and which probably served as dungeons. This makes it probable that the chambers connected with these were occupied by guards and warders.

The removal of some later walling, consisting of older materials re-used in a promiscuous manner, on the East side of the lower part of the Northern entrance brought to light the lower blocks and bases of five massive square pillars which were seen to form part of a system. Further excavation Northwards resulted in the uncovering of several more bases and finally revealed the plan of a Portico consisting of twelve pillars. Of the South-Easternmost of these all traces had vanished and only the foundation socket was visible of the last but one to the North-West, but the arrangement and regular espacement of the pillars was otherwise quite clear. (See Plan, Fig. 2, and Fig. 3.)

This Portico, consisting thus of a double row of six pillars, flanked the roadway running North from the entrance passage for a distance of about twenty metres. At the same time its central opening faced the remains of what seems to have been a double gateway from which the traces of another paved road ran West. The Portico thus stood at the chief point of access to the Palace both from the City and the Sea-port. The square pillars as far as they were preserved consisted of gypsum blocks .85 cm. x .85 and 1.05 in height resting on larger bases and placed at intervals of 2.65 metres (Fig. 3).

Opposite the Northern part of the Portico and dominating the meeting point of the two roads are massive remains of what appears to have been a tower or guard-house, and, facing this, a massive bastion. Indeed, as already noticed in the first Report, there is every evidence that the

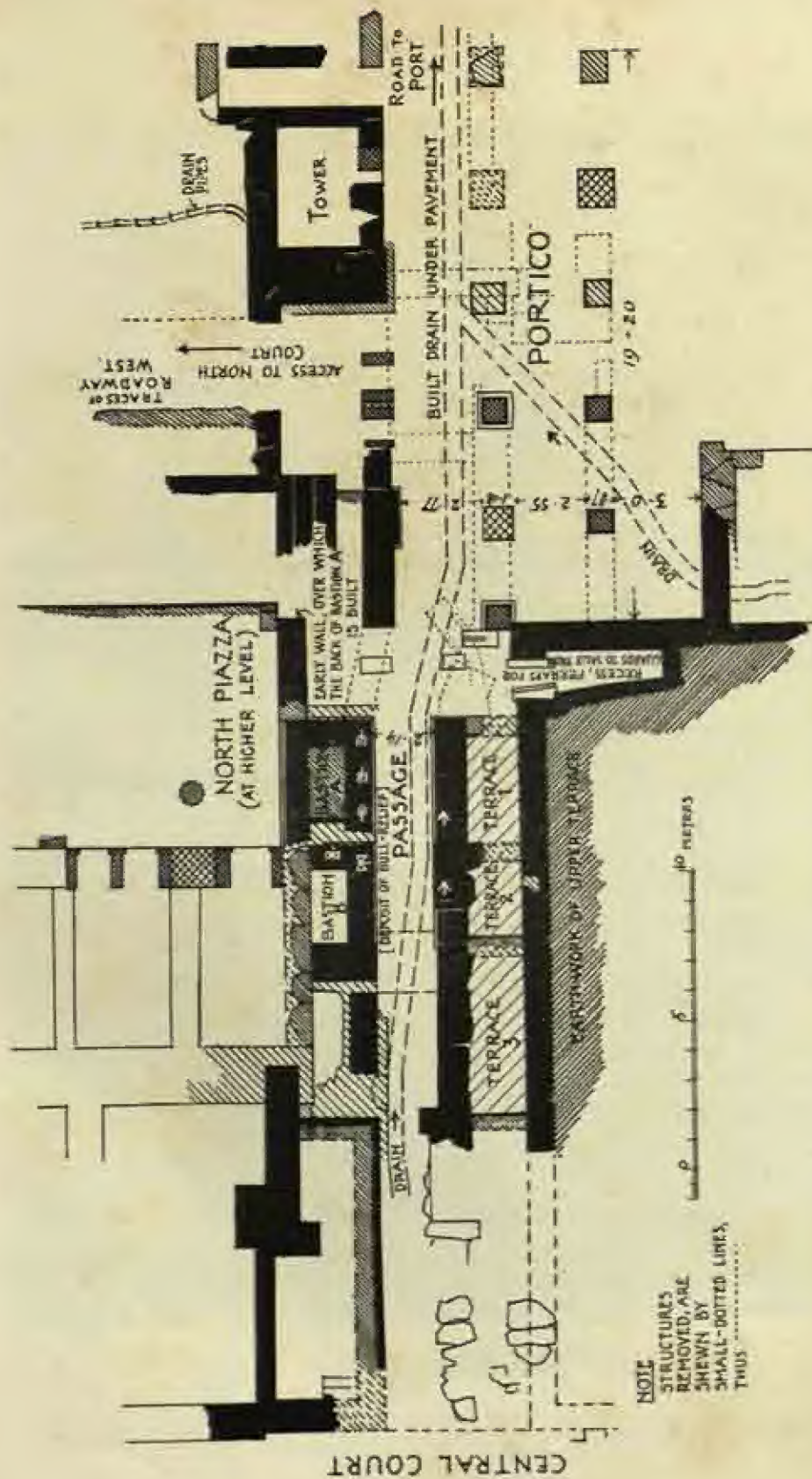


FIG. 2.—PLAN OF NORTHERN ENTRANCE AND PORTICO

Northern entrance to the Palace, which must have been the chief avenue of public access, was jealously guarded.

Further North all remains of the Palace proper cease and the roadway itself with its accompanying main-drain also breaks off. At a distance however of about twenty-five metres North of the Portico was found the basement of an important building which from its position seems to stand in some relation to the Palace. The Southern wall-line of this building lies in fact at the point at which the Northern roadway if prolonged would be intersected by the small paved causeway that runs, pointing in this direction, past the North-Westernmost angle of the Palace. The main part of this building is a room, about 5.30 by 8 metres, in which at a distance of 1.62 metre from the North wall stood two pillars consisting of tall gypsum blocks. One of these was 50 cm. square with bevelled edges and 1.52 metre in height. It was standing *in situ*, the upper part of the pillar being visible in the floor of a modern threshing-floor. The other pillar, shaped like the first, was found in a half-fallen position and proved to be 2 metres in height, though much corroded. These pillars stood on square limestone bases with an interval of 1.10 metre between them.

That this pillar-hall was a basement structure appears probable from the fact that the outer stones of the walls show a rough face. The North and East walls were of exceptionally large limestone blocks—one 1.72 m. in length by 0.64 in height. Of the South wall only a fragment remained. The West wall consists of two courses each about 50 cm. high with a plinth below. It is constructed of more finely cut blocks, like some of the best Mycenaean work of the Palace. Several fallen blocks of the same kind evidently belonging to the upper storey showed the trident mark so characteristic of the great bastion of the North Entrance of the Palace. In one case this was combined with the star.

As a whole, however, the construction of this isolated building differs from that usual in the Palace itself. That the walls should be constructed wholly of masonry was itself an exceptional phenomenon. In the door openings, on either side there were none of the regular jambs. The pillars, formed of single blocks, resembled one or two found in the earlier structures, associated with fine 'Kamáres' pottery, on the South-East slope. It may be supposed that here, as in the case of the Pillar Rooms of the Palace, these basement pillars formed the supports of a pair of columns in an upper hall.



Road turning
West. ↓

Bastion A. ↓

Bastion B. ↓

Passage up to
Central Court. ↓

Wall
supporting
Earth Terrace. ↑

Roadway
turning
N. ↓

Base of Pillar
of Portico. ↑

Opening of Passage leading
up to Central Court. ↑

Pillars of Portico. ↑

FIG. 3.—NORTHERN PORTICO AND ENTRANCE PASSAGE.

On the floor level of this room, formed of stamped clay,¹ was a stratum of burnt wood and a good deal of rough mature Mycenaean pottery was here found, together with some fragments of Geometrical ware. About 10 metres due North of the North wall of the chamber and centering with it, a well was discovered, the bottom of which was finally reached at a depth of 15.50 metres. This well also contained throughout potsherds belonging to the same two classes. A little East of this spot were found what seemed to be the remains of an oven-shaped tomb containing broken vases of the same Geometrical class as that found in the well and Pillar Hall.

The occurrence in this area of Geometrical pottery seems to show that this Pillar Hall and its dependencies, though of earlier origin, had continued to be occupied in post-Mycenaean times. It thus presents a striking contrast to the Palace proper, where traces of the Geometrical Period have been throughout conspicuous by their absence. 'Geometrical' tombs, some of which were explored by Mr. Hogarth,² occur on the hills that overlook the later Greek and Roman town of Knossos to the North.

§ 3.—DEVELOPMENT OF THE OLIVE PRESS SYSTEM: THE COURT OF THE OIL SPOUT AND ADJOINING MAGAZINES OF THE KNORRED *PITHOI*.

The further investigation of the area in the neighbourhood of the Room of the Olive Press and of the adjoining lower terrace led to a series of discoveries which bring the whole of this region into systematic relation and show that they were devoted to the manufacture and storage of oil.

Additional sections of the stone duct or runnel leading from the oil-vat were brought to light, proceeding by an angular course along the adjoining wall-tops towards the curious spout of gargoyle-like aspect that had been found projecting from the outer side of the Upper East Terrace wall (Fig. 4).³ It thus appears that this stone spout was not, as had been at first supposed, connected with a rain-water gutter, but was devised as means for pouring the oil derived from the press above into tall earthenware recipients.

A completer examination of the area, here overlooked by the terrace

¹ Between the two pillars however was a deposit which does not seem to be flooring.

² See *Annual*, vi. (1899-1900), p. 83.

³ See *Annual*, 1900-1901, p. 64.

wall, showed that it was originally surrounded by good walls of limestone and gypsum such as elsewhere in the Palace form the face of small courts and light-wells and that it had therefore never had an upper storey. The deposit of wall-paintings found here with the scenes exhibiting the female toreadors must have been derived from a room or gallery above the terrace wall with the spout.

This open area, to which the name of the Court of the Oil Spout may appropriately be given, would naturally have been devoted to filling various vessels with oil. It is probable that the short break in the course of the oil-duct that is visible on the upper side of the terrace wall was



FIG. 4.—PROJECTING OIL-SPOUT IN UPPER EAST TERRACE WALL.

occupied by a settling vat or vats, where the impurities of the fluid and its coarser portion were allowed to settle on a bed of water that could be raised or lowered in the manner usual in such reservoirs. Immediately on one side of the place where such a vat would naturally have stood there are in fact remains of a well, suggestive of the need of a water supply. The oil conduit itself showed a curious variation in different parts of its course. At the point where it emerges from the press it is 43 cm. wide and 9 deep, while at the end nearer the spout it is 21 cm. in width and 14 in depth, the depth thus increasing as the width decreases. It is probable that the channel was originally lined with cement to prevent leakage at the numerous joints between the limestone blocks in which it is cut, and this

may account for the fact that its present dimensions seem unnecessarily capacious for an oil duct.

The West or Terrace Wall of the Court of the Oil Spout is formed of three courses of fine limestone blocks of an average length of 1.50 m. and height of 50, resting on a projecting plinth below. These blocks show the trident sign, sometimes two on the same block. The South Wall of the Court contains similar limestone blocks (without signs) above a plinth; it is broken by a doorway leading to the 'School Room.' The North Wall of the small Court was of gypsum, two blocks of the lower course only remaining, surmounted by another, 1.34 wide by 1.24 high. It is possible that the Court was open to the East and that the remains of limestone walling here represent another terrace edge. In the middle of the Court was a blind well with traces of a drain leading into it.

The direct relation of the Court of the Oil Spout with the Olive Press above sufficiently explained the character of the chambers found to the East and North of it. On the removal of the great shoot from the previous excavations which had obscured this part of the site a series of magazines containing *pithoi* were brought to light. The jar found in the space immediately East of the Court was of ordinary dimensions, but in the area to the North three magazines were traceable containing *pithoi* larger than any yet discovered. It seems probable that these great jars were filled with oil *in situ* by means of ducts from the oil-spout or by a branch of the stone conduit on the terrace above, of which traces have now disappeared.

Besides their exceptional size the decoration of these *pithoi* differs in several respects from that of any hitherto found. Their rims had in all cases suffered from too great proximity to the surface, but the bodies of the jars were surrounded by tiers of upright handles placed at unusually close intervals (Fig. 5 *a* and *b*). Fourfold lines of raised ropework arranged horizontally divided the surface into zones, and these were connected by a succession of triple cross-lines of the same kind. The whole thus presented the appearance of large jars bound round by a kind of rope network very realistically reproduced and arranged in a manner suggestive of the means by which they were actually transported from the place of manufacture.

The most characteristic feature, however, of these great jars is supplied by the best preserved of them, where the inter-spaces between the handles and rope-work are decorated with groups of knobs like the studs of metal-work (Fig. 5 *b*). This knobbed decoration is of special interest as it enables us to group this class of *pithoi* with the vases

studded over in a similar manner found in the Corridor of the Bays.¹ These vases, like so many of the earlier Minōan class, betray in their embossed relief and other particulars a distinct indebtedness to prototypes in metal-work, and it is reasonable to suppose that the stud ornament was in this case taken over from the same source. The knobbed decoration may in turn have been transferred to *pithoi* from the example of the smaller vessels. In any case the parallelism in decoration must be taken



a.



b.

FIG. 5.—LARGE *Pithoi* WITH KNOB AND ROPEWORK DECORATION.

as an evidence of contemporaneity and the knobbed *pithoi*, like the vases, must belong to a comparatively early period in the history of the existing Palace.

Of the three Magazines containing the knobbed *pithoi* the Westernmost, containing remains of three jars, was 5.18 by 2.94 m. in dimensions with a floor level about 2.50 m. below the terrace level immediately above it. It opens into another Magazine of the same length but only 2.10 m. wide containing two more jars, and that in turn into a third store room with a floor-level 1.80 m. below that of the two other Magazines, but of which only parts of the wall-lines are preserved. The best preserved *pithos*, Fig. 5*b*, stands in this chamber. Between these Magazines and the Court of the Oil Spout an ascending Corridor 1.60 wide, the steps of which however have disappeared, runs from East to West.

¹ *B.S. Annual*, 1900-1901, pp. 85, 86: Fig. 26, 28.

§ 4—THE "PENS" OF THE UPPER EASTERN TERRACE.

About five metres West of the Magazines of the Knobbed *Pithoi* is the low terrace wall with interrupted upper courses broken by elongated grooved slabs referred to in the previous Report.¹ A further examination, however, has brought out the fact that these grooved slabs, of which six are preserved, were not, as at first supposed, runnels akin to those of the oil-press. The grooves in fact, though open on the outer face of the wall,



FIG. 6.—GROOVED BLOCKS FOR PARTITIONS.

run in 1.50 m. to square endings. It is obvious moreover from the dowel holes at either end of these elongated grooved blocks that they supported, both in front and at their further extremity, some kind of wooden framework (Fig. 6). It seems therefore possible that the grooves themselves were for sliding wooden partitions by means of which the space above the terrace wall was divided into compartments. What was the purpose of these can only be a matter for conjecture. Their width is only about two and

¹ *B.S. Annual*, 1900-1901, p. 93.

a half metres and their probable depth about the same, which makes them too small for stables, but they may have been pens for some kind of live-stock, or possibly kennels.

§ 5.—THE TERRACOTTA DRAIN-PIPES BENEATH THE FLOOR OF THE CORRIDOR OF THE DRAUGHT BOARD.

The removal for purposes of investigation of some slabs of the flooring upon which the Royal Gaming Board had rested, resulted in an interesting discovery. Immediately below the flooring at this point, 1.45 m. down, was found a terracotta drain of remarkable construction. (Fig. 7 *a* and *b*.) The drain, of which two sections were found at this

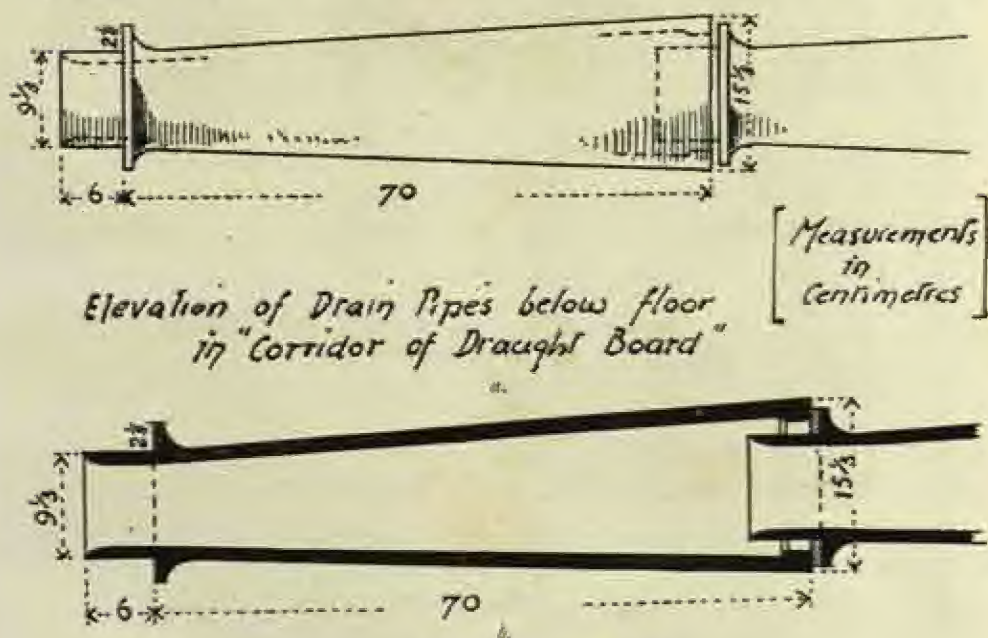


FIG. 7.—TERRACOTTA DRAIN-PIPES.

point, running North-East was broken off at its Southern end by a later wall-foundation, immediately beyond which, however, its course was again struck and three more tubes were found in position socketed into one another. The circumstances of the find show that these drain pipes are at least anterior to the good pavement of Mycenaean date on which the

Gaming Board had rested and that they in all probability go back to the earliest period of the Later Palace.

This indubitable evidence of their great antiquity makes the extraordinarily advanced construction of these terracotta pipes the more remarkable. It will be seen from Fig. 7 *a* and *b* that the mouthpiece of each tube is provided with a stop-ridge, solidly backed behind, which when fixed against the butt end of the succeeding tube afforded effectual resistance against pressure that would otherwise have been likely to wedge the two together to splitting point. On the other hand the inside of the butt end of each is provided with a raised collar which offered a widened surface to the stop-ridge of the tube with which it was connected and at the same time supplied an additional hold for the cement that attached the butt end of the one to the mouthpiece of the other.

The tubes are 76 cm. in length with a diameter of $1\frac{3}{4}$ cm. at the butt end, and $9\frac{1}{2}$ at the mouth. Smaller clay pipes of simple fabric, the tubes of which, though socketed into one another, were not provided with stop-ridges, occurred in other parts of the Palace area, namely in a room near the South Propylaea, outside the Northern Tower, and in the Court of the Sanctuary to be described below. On the other hand jointed clay pipes with stop-ridges of very similar construction have been found by Dr. Dörpfeld on an early site explored by him in Leukas.

§ 6.—REMAINS OF PORCELAIN MOSAIC SHOWING HOUSES OF MINOAN CITY AND OTHER SUBJECTS.

Immediately North of the basement area in which the remains of the large spiral fresco were found in 1901, another basement chamber was opened out which proved to contain relics of extraordinary interest. The West end of this cellar was partly covered by the slabs of a pavement upon which rested some plain tripod vases like others found in the North-East Magazines. From a depth of about a metre onwards beneath this floor level were found a series of enamelled plaques which had evidently belonged to a considerable mosaic—the material resembling Egyptian porcelain but of the native Knossian fabric.¹

¹ In this space or on its borders were also found what appear to be large draught-men of ivory, 73 to 82 millimetres in height and 80 to 82 in diameter, and almost exactly answering to the diameter of the circles of the Gaming Table. One type has engraved below a disk surrounded by sixteen rays. Another type shows eight small engraved circles forming a ring. That these actually represent the pieces belonging to the board found only a few metres off, is highly probable.

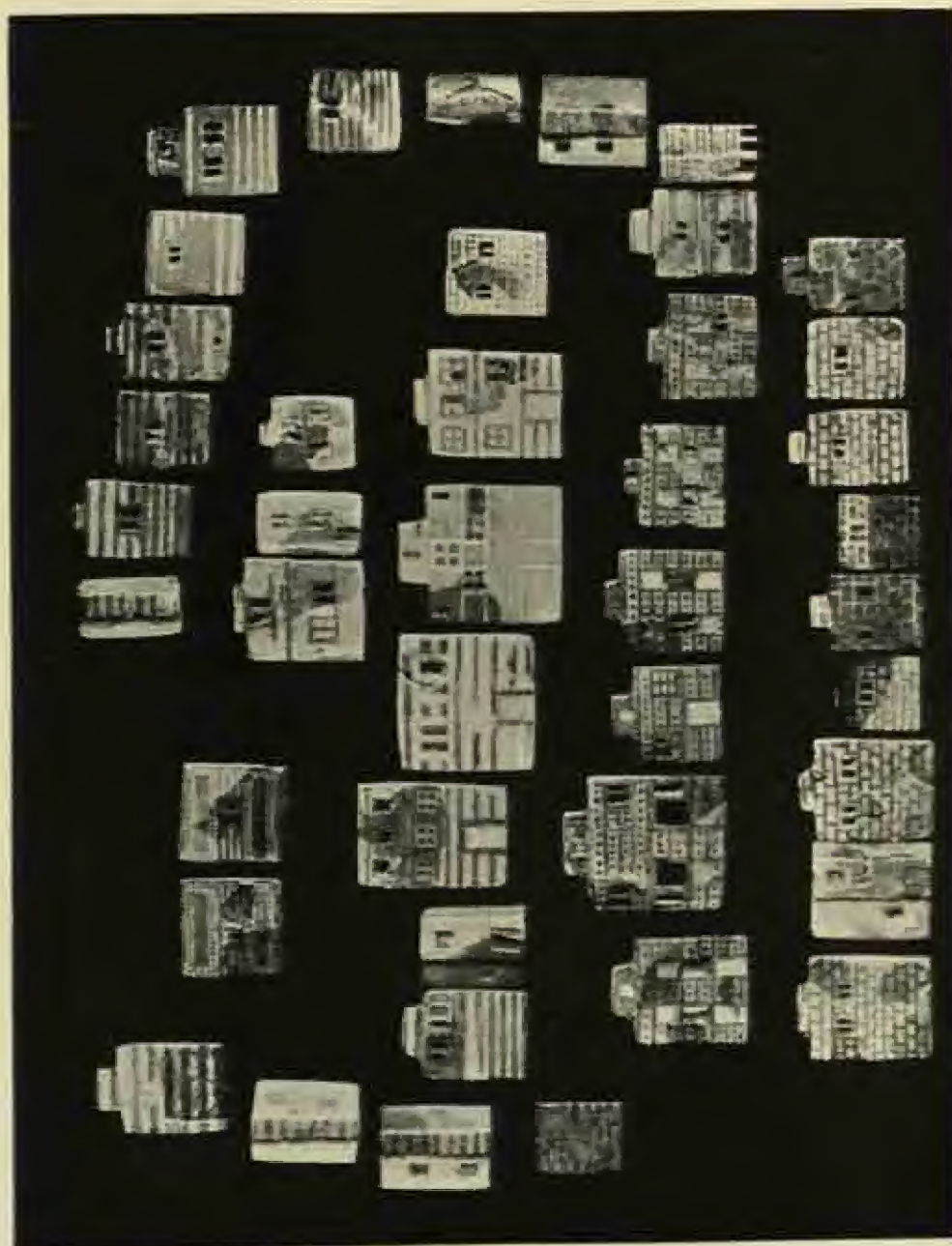


FIG. 5.—TABLETS OF PORCELAIN MOSAIC IN FORM OF HOUSES AND TOWERS.

A large number of these porcelain plaques were found to represent houses, towers and other buildings. Owing to the friable nature of the material, and the fact that they had evidently fallen from a room above, the plaques were in a much broken condition. In many cases, however, enough remained to supply a sufficient idea of the whole, and it was possible to reconstitute over forty examples of these façades. Fig. 8, from a photograph, gives a view of a series of these as thus reconstituted by me; certain recurring features in the design making it possible in some cases to complete the construction from comparatively fragmentary evidence. The arrangement as seen in Fig. 8 is an arbitrary one—the guiding principle having been to keep the buildings resembling towers and fortifications in the outer ring.

In order to make it quite clear what part of these reconstructed tablets represents the original fabric, special drawings have been made of characteristic examples by Mr. Fyfe, under my direction, and of these, two typical specimens of houses are given in Fig. 9 *a* and *b*. In a summary Report like the present it is impossible to deal more fully with this extraordinary architectural material.

Fig. 9 *b* represents a class of façade of which several fairly complete examples exist, so that every detail is thoroughly authenticated. The original of this type was obviously of wood and plaster construction, in which the round beam ends in the timbered compartments form a characteristic feature. It will be seen that many of these were quite short, simply laid across the thickness of the wall, a system of construction so ingrained at Knossos that in the great halls of the Palace, as will be shown below, beam courses of this kind are actually found interrupting the stone-work.

On the ground floor are what appear to be two doors, divided by a central panel—an arrangement superficially suggestive of modern semi-detached villas. Above the doors are two double windows filled with bright red pigment, above that again two larger window openings, and finally, what looks like an attic, with a small single window also coloured red. We have here a house or pair of houses with at least three stories.

The façade given in Fig. 9 *a* shows a different structure. The round beam ends are here wanting, and we see horizontal beams, with intervals of what seems to have been plaster-faced rubble. This house has a single door below, and, opening from the first floor, a row of three four-paned windows, coloured red like the others, set in a timber framework, while

the uppermost floor is provided with three smaller windows which show no traces of coloured filling and seem to have been simple openings.

In one case we see two rows of four-paned windows, in another double windows of six panes. In two examples a very curious form of double-window appears, curving in, crescent fashion, on the outer sides. The more tower-like houses show no door below, but sometimes a small attic-like structure above with a small window. Some of these tower-houses, which probably represent outer bulwarks of the town, are constructed of hori-

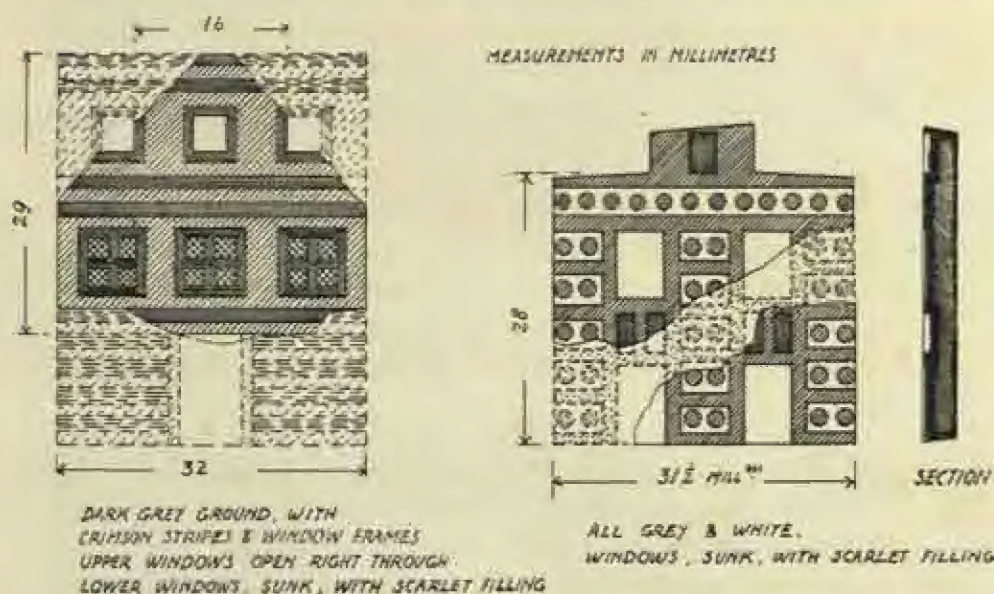


FIG. 9.—PORCELAIN TABLETS IN FORM OF HOUSES (SLIGHTLY ENLARGED).

zontal beams with interspaces of rubble masonry and plaster, like so much of the Palace fabric, while others are of isodomic masonry. Of towers proper there are several varieties, among them a type with a door below, constructed of what appear to be massive upright beams, and greatly resembling a gate visible in the outer wall of the besieged city seen on the silver vase fragment from Mycenae.

The upper, door-like openings, which in certain cases occur above rooms with regular windows, recall a feature repeated in some of the miniature wall-paintings. In these, groups of ladies are seen standing in similar openings, as upon a balcony. In other cases the women seem

to be seated at open windows of a more usual type, and in one instance there is visible a part of a curtain, apparently of light material, perhaps drawn at night as a protection against mosquitoes.

The red pigment in the windows of the mosaic suggests that some substitute for window-glass was in use—perhaps oiled and scarlet-tinted parchment. In the Eastern Quarter of the Palace there will be repeated occasion to notice in the walls of the small courts and light-wells the existence of window openings with the dowel holes for the wooden framework. But that windows of such a modern aspect as these before us should have existed in Minóan Knossos is a phenomenon for which no analogy of classical civilisation could have prepared us.

Unexpected indeed as have been so many of the revelations of this early Cretan culture, the whole appearance of these house façades with their three and even four stories is perhaps the most astonishing. In view of the generally grandiose character of the Palace itself, the indications of upper stories appear natural enough. But in the houses of the mosaic we can hardly fail to recognise the dwellings of the ordinary Minóan citizens. That these should have attained the tall proportions of the houses of a modern street-front points surely back to long previous generations of civic life.

The original physiognomy of these houses is undeniable. Yet the question naturally arises whether there was not here, as in so many other aspects of early Cretan civilisation, an ultimate indebtedness to Egyptian models? As a matter of fact the fundamental elements in these house fronts as illustrated by the typical variety shown in Fig. 9 *b*, do correspond in a remarkable manner with those of the better class of Egyptian houses. On monuments of the XVIIIth Dynasty the evidence is to be found of a well-marked type of house with a lower storey in which, as a rule, three doors are seen side by side, a kind of *entresol* with windows, barred, or with open panels, and an upper storey with an open colonnade in front. These features it will be seen all reappear in the Knossian houses. The room below has often a pair of doorways, though, perhaps owing to the greater inclemency of the climate, there is a greater tendency to reduce these to one. Here again is a first floor with windows, though probably, for the same reason, oiled parchment, anticipating glass, may in this case have filled the panels. The door-like openings of the upper storey, in turn, correspond with the open gallery of the Egyptian type, though the

Knossian system secured greater protection against the Cretan hurricanes. The Knossian attic, again, would have afforded a more efficacious shelter for the roof-top than the mere awning, which seems to have been its Egyptian equivalent.¹ No awning could stand a week against the boisterous winds that sweep this site. The timber framework and beam ends are also Northern characteristics.

It must be borne in mind, moreover, that while the Egyptian houses of which we have the records are isolated villas surrounded by courts and gardens, the gates and towers with which the Knossian house-fronts are associated lead us to suppose that they were ranged together in the actual streets of a fairly compact town, and that they are true examples of civic architecture. The influence of Egypt must be admitted, but there was certainly an indigenous core to this domestic architecture of Minōan Crete. The "Mycenaean" column itself is neither Egyptian nor Oriental, but a true outgrowth of a primitive European type.²

The plaques themselves somewhat vary in size, the mean of the houses being about $4\frac{1}{2}$ centimetres in height and 4 in width. The ground colour representing the plaster or masonry is white or greenish, often with a lilac tinge. The timber is generally coloured brown or brownish green, sometimes with an admixture of crimson. The edges of each piece are slightly bevelled back.

The amount of small fragments found of these architectural plaques shows, that if, as appears probable from their occurrence in the same deposit, they belonged to a single mosaic, a considerable city must have been represented. But the city itself seems to have formed only a part of a larger composition. Other plaques occurred representing a great variety of subjects, though, unfortunately, as will be seen by the examples given in Fig. 10, for the most part, in the same fragmentary state as the houses.

Among the subjects figured on these are men and animals, trees and running water. The men are, in most cases, warriors, dressed in the same short, close-fitting loin-cloths, as that worn by the Cup-bearer and the youths of the Procession painting. These hold either spears or bows of the European and African type. On two pieces are what appear to be curved and crested helmets; in some cases the figures seem to be marching. Others, in a very fragmentary state, are in a half-kneeling

¹ See Chipiez's reconstruction of a Theban house of the Eighteenth Dynasty. *Peint et Chipiez, L'Art, &c.* vol. 1, p. 283, Fig. 267.

² See my *Mycenaean Tree and Pillar Cwt.* p. 88 *supp.*

pose which recalls that of the bowmen of the siege-scene on the silver vase from Mycenae. In another case there is seen a part of a prostrate figure, or perhaps of two men grappling with one another. The warrior plaques are of very different sizes; those with the upright figures, measuring respectively about 8 and 5 centimetres in height, must therefore belong to different zones or panels. The skin colour here is of a pale ochreous tint, and the loin-clothing of a greenish hue. In addition to these, however, are other figures with a more swarthy skin colour, some of them exceptionally small, and with hands stretched out as if in the guise of suppliants. The lower part of a larger figure of this dark-skinned type takes a curious squatting and frog-like attitude.

Among the fragments with animal types are parts of several goats with ibex-like horns, resembling those of the Cretan *agrimi*, and the foot of an ox. Two kinds of trees are represented, one perhaps intended for a vine, the other with willow-like foliage. Some pieces with curving horizontal bands of white and green seem intended to depict running water. The succession of similar types on plaques of the same size and shape, observable in the case of the marching warriors, of the goats, and of some of the houses, points to an arrangement in zones. On the other hand, the great discrepancy in size of some of the figures—specially noticeable in the case of the dark-coloured men—suggests distribution in quite distinct compartments. This kind of discrepancy is best explained perhaps if we suppose that the porcelain plaques formed part of the inlay of a wooden chest, in which case the more diminutive figures might have been set on the smaller sides. That they were made smaller on account of any attempt at perspective rendering in the same field is hardly probable.

It is to be observed that the porcelain plaques found in the Throne Room occurred in association with a mass of more or less carbonised cypress wood, which shows that they were set in a framework of that material, probably, as in other cases, overlaid with thin gold plate. With this analogy before us, we may recognize in the present mosaic the remains of the decoration of a wooden chest, a true *δαίδαλία λάμναξ* like that of Danaë, and may see in it the remote prototype of the Chest of Kypselos—the porcelain plaques here taking the place of the ivory. The character of the inlay—a native imitation of Egyptian porcelain—suggests that the type of chest to which these plaques may have belonged, was taken from Egypt; and the probability of this is heightened by the

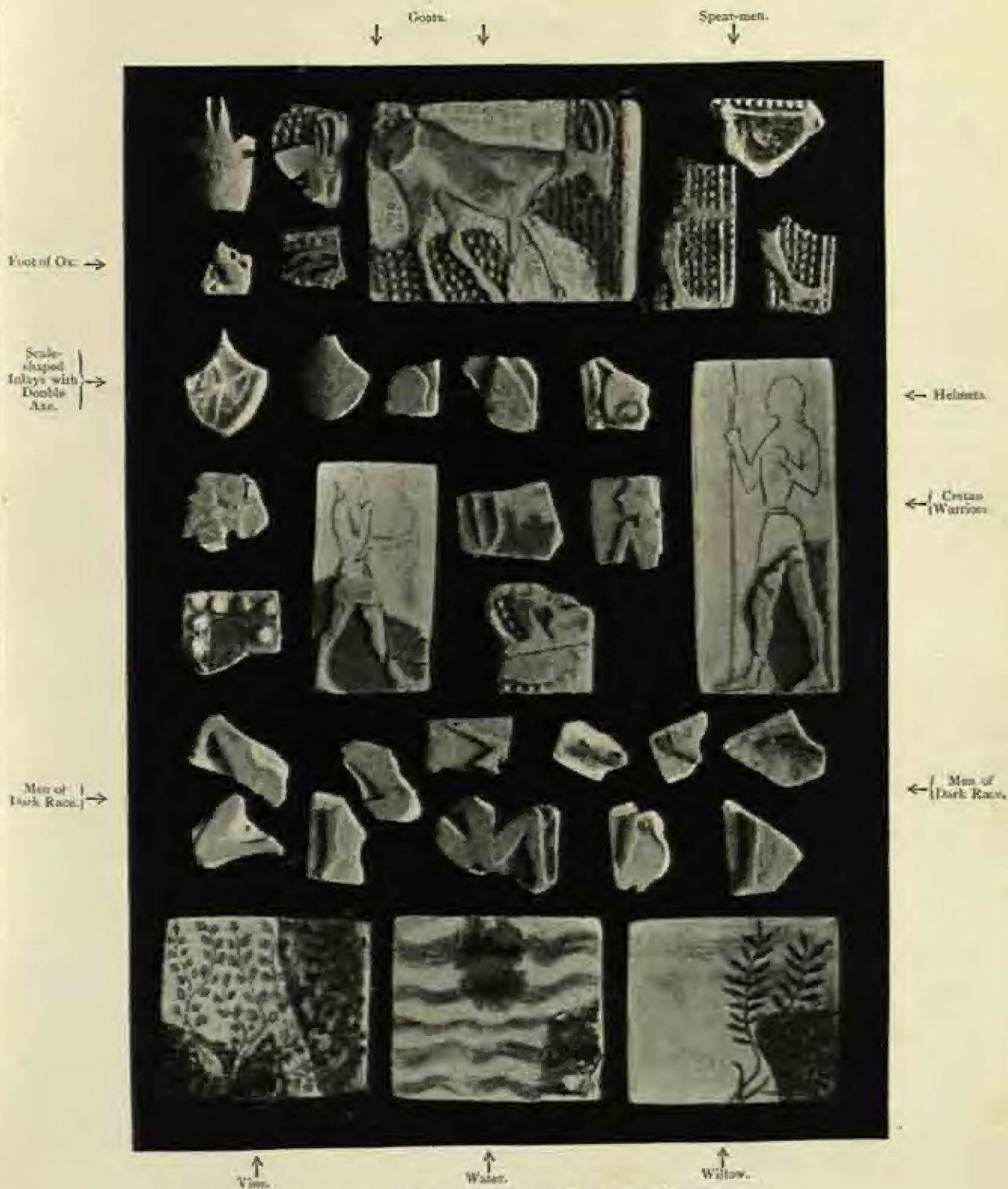


FIG. 10.—PORCELAIN TABLETS SHOWING WARRIORS, ANIMALS, ETC.

fact that the painted terracotta *λάβραες* of the late Mycenaean tombs of Crete were certainly imitated from the painted chests of contemporary Egypt.¹

The scenes depicted in the present mosaic, however, were not of that mythological class which, according to Pausanias, filled the zones and panels of the masterpiece of early Corinthian carving. We have here, on the contrary, *genre* compositions greatly recalling those of the Miniature Frescoes. The architectural scenes on these, the warriors manning the walls and hurling javelins, supply distinct analogies, though the treatment in that case is of the free pictorial kind. In the present case the character of the material necessitated a more rigid distribution into zones and the breaking up of these into a succession of separate unities contained by the several tablets. The mechanical facility moreover of casting numerous plaques from the same mould seems to have favoured serial groups repeating the same design.

The fragmentary nature of the evidence only enables us to realise vaguely and imperfectly the contents of the whole composition as distributed into the various zones and panels. The warriors and city recall the siege scene of the silver vase, but the warlike episodes do not by any means exhaust the aspects of the record once unfolded in these mosaic groups. The homes of civic life within the walls, the goats and oxen without, the fruit trees and running water, suggest a more literal comparison with the Homeric description of the scenes of peace and war as illustrated on Achilles' shield than can be supplied from any other known source. The division into zones and panels lends additional point to this resemblance.

The scenes here are obviously of real life. The houses before us are those with which the artist was familiar in Knossos itself. The warriors wear the usual dress of the Knossian youths. The art here is historical; and in the dark-skinned, and—in one case at least—grotesque figures of the vanquished we have perhaps a living record of a Libyan expedition. Nor is it certainly without definite intent that on the back of each of the scale-shaped pieces of enamelled ware, which seem to have formed a kind of decorative border to part of the design, is seen in relief a figure of the sacred Double Axe, the emblem of the tutelary divinity of Minōan Knossos.

¹ See *The Palace of Knossos in its Egyptian Relations*, p. 3 (Archaeological Report of Expl. Fund, 1899-1900, p. 66).

§ 7.—EARLIER ROOMS IN OLIVE-PRESS AREA BENEATH LATER PALACE BASEMENTS.

Throughout the whole space included by the Olive-Press system, the basement containing the enamelled mosaic, that with the remains of the spiral fresco, and the adjoining chamber South of the latter, a whole group of rooms with an earlier floor level came to light underlying those of the Later Palace.

The preceding discoveries have made it evident that the area in question was occupied during the Later Palace Period by a series of basements with a simple earth flooring, which lay about 1·80 metres beneath the level of the ground floor pavements. When, at the time of the destruction of the Palace, these ground floor pavements were partly broken through, the cellarge below became a receptacle for masses of important debris from the upper storeys, and it was in various compartments of this that the remains of the spiral fresco, the painted stucco figures in high relief, and the porcelain mosaic, were found lying on or near the basement floor.

Below this wall-marked line, which lay at a mean depth of about 2·50 metres below the existing surface of the ground, there was a comparatively barren interval. But the walls of the chambers continued to descend, and, about 2·40 metres lower, there came everywhere to light the evidence of a series of earlier floorings, the material of which consisted of hard white stucco with a pale yellow surface. Upon this level, and in the stratum immediately above, ceramic and other remains became once more abundant, all belonging to an earlier Palace building.

This earlier Palace floor level was in its turn superposed on a Neolithic deposit containing fragments of black hand-burnished pottery, stone and bone implements and other relics, which went down with a varying thickness of from 3·20 to 3·60 metres to the virgin soil. The total thickness of the deposit containing the remains of these various periods amounts, therefore, to about 8·50 metres as measured from the surface to the ground.

Nothing could be more complete than the stratification thus exhibited. Evidently the earlier floor level represented the ground-floor rooms of the original Palace, and it was specially interesting to observe that here the main lines of the later Palace were simply superposed on those of the

more ancient building. It was indeed often difficult to determine where the remains of the earlier walls ended and the foundations of the later work, largely composed of more primitive blocks, began.

Painted stucco belonging to the primitive fabric occurred in several chambers, some *in situ*, some fallen. In the room beneath the North-East corner of the Olive-Press room two plaster steps were found going down to the floor of the room, the steps sloping in the characteristic manner of the early steps in the Palace of Phaestos. Near this the early walling was coated to a height of about a metre with the original plain plaster. In the space South of the area of the Spiral Fresco were found parts of a plaster dado belonging to this earlier Period.¹ It was decorated with horizontal bands of red, white, and black and curved streaks descending from this which showed an alternation of colours—black, white and grey-blue, black and white, red, yellow and black. The character of this polychrome decoration differed from that of the Later Palace.

In the North-West corner of this space is a plaster platform which runs under the foundations of the later basement wall and shows that this space and that beneath the room of the Spiral Fresco originally opened into each other. This platform was covered by a compact layer of fragments of 'Kamáres' ware, above which was a heap of over four hundred clay loom-weights, flatter than the later Palace type. Another similar plaster dais of white stucco, with pale yellow facing like the pavement, came to light in the area beneath that of the Spiral Fresco. In this chamber were large pieces of fallen stucco with a pinkish surface, backed by a cement composed of pounded potsherds and small pebbles.

In the South-East corner of this area was found what appeared to be part of a chest of red and yellow stucco. It is possible that this chest had originally contained two interesting relics found near it. One of these is a miniature vase of blue 'porcelain,' with a foot, collar and thimble-like receptacle of gold-plate, which may have contained some perfume as precious as attar of roses (see Fig. 11). The other consists of very elegant fern-like sprays of thin gold plate and wire (see Fig. 12). These were laid on a small flat bowl of plain clay containing some carbonised substance. It is possible that this relic was of a votive character, and that it should be taken in connexion with a series of painted terracotta objects found near this and in the same stratum which relate to a very early cult of the Dove Goddess. These are of such importance and so varied in character that a summary description of them is reserved for the succeeding Section.

¹ See Theodore Fyfe, *op. cit. Journ. R. I. B. A.*, 1902, p. 109, figs. 1, 2.

The 'Kamáres' pottery found in this area included a series of miniature amphoras, cups, and oenochoae, in a perfect condition, and remains of several



FIG. 11.—SMALL VASE OF PORCELAIN AND GOLD ({}).

large vases which it has been possible to put together. The smaller vessels for the most part display a plain white decoration—such as spirals, concen-



FIG. 12.—GOLD SPRAY IN FLAT BOWL ({}).

tric circles, herring-bone pattern and sprays,—on a black or dark grey ground, and range from about 6 to 8 centimetres in height. The large

vases show a greater variety of design and colour—including, besides black and white, orange-red, and crimson—and are the finest of the class that have yet come to light, some approaching 60 centimetres in height. Among the decorative motives are eyed disks combined with leafy sprays (Fig. 13 *a*), conventional palm trees, together with other patterns similar to those already mentioned. The specimen given in Fig. 13 *b* shows a



FIG. 13 *a*.—PAINTED JUG (H).

spouted vessel of a typical form. It is 58 centimetres in height and has a dark grey ground with designs in white and orange-red showing dull crimson spots on the orange. These vessels from their form and style seem to belong to rather a late class of what may be called the 'Minóan' Ceramic style and it is observable that there did not occur in this series of chambers any of the finer egg-shell fabrics with their delicate imitations of metallic forms such as were contained in some of the magazines on the lower Eastern Terrace (see below, p. 117 *seqq.*). On the other

hand there was nothing of the purely transitional class which characterises the later Palace.

A comparison of levels shows that the ground floor level of the early chambers above described was the same as that preserved later in the Hall of the Double Axes and its connected system to the South and in the



FIG. 13. —PAINTED JUG (1).

'School Room' and adjoining chambers to the East. It was only during the period of reconstruction that immediately preceded the Mycenaean Period proper, and to which the Palace in its existing shape is mainly due, that these more Northern ground floor rooms, half choked with debris, became the basis of later cellarage areas underlying a terrace level which formed the new 'ground floor' in this region.

§ 8.—MINIATURE SANCTUARY OF DOVE GODDESS IN PAINTED TERRACOTTA, AND ACCESSORY OBJECTS.

In the early chamber, underlying the later cellar with the remains of the Spiral Fresco, and which contained in addition to fine, later Minóan vases the golden fronds and small gold and porcelain bottle, there were also brought out a series of painted terracotta objects of great religious interest.

These terracotta relics consisted of the remains of a miniature Sanctuary including a Pillar Shrine with sacred doves, altars with their ritual horns, a kind of portable seat for a divinity, and other accessories. The remains of some of these had been a good deal broken, but in many cases it has been possible to fit together the pieces, and with further study additional reconstruction may be eventually possible. The objects as they stand, however, quite suffice to throw an altogether new light on the pre-Mycenaeen cult of the 'House of Minós.'

The original surface of the terracottas, which varies from buff to pale brick-red, has been coloured black, white, and red—the characteristic colours, that is, of the early vases with which they were associated.

Of special importance is a group of three columns (Fig. 14), the round, rectangular profiled bases of which are ranged along one edge of an oblong platform. The columns themselves show no tendency to taper. The capitals are square and leave a small interspace between each as if they were pieces of an interrupted architrave. Across each of these square capitals are laid side by side two sections of round beams, their circular ends showing in front, and again upon each of these is perched a dove with closed wings. The doves are black with white spots, the beam-sections, capitals and columns are red, their bases black, and the platform upon which they stand white.

It will be seen that here each column is a separate religious entity. Instead of the three combining to support a common entablature, the whole superstructure is in each case separately rendered by the two sections of round beams on which the sacred birds are seated. By a kind of architectural shorthand each column by itself is thus indicated as a 'Pillar of the House.'¹ We have here, therefore, the most ancient known example of the class of sacred pillar seen on the Lions' Gate at Mycenae and on a

¹ I can only refer to what I have said on the subject of the sacred pillar exhibited as performing structural functions and a 'Pillar of the House' in my *Mycenaeen Tree and Pillar Cult*, p. 45 seqq. (*J.H.S.* vol. xxi. 1901, p. 143 seqq.)

series of Mycenaean gems and signets.¹ The trinity of baetylic columns, moreover (so popular in Semitic cult), recalls the fact that in the case of the gold shrines of Mycenae, and again in the Temple Fresco from the Palace of Knossos, we find a triple group of pillar cells. There can be little remaining doubt that the miniature dove shrines of Mycenae refer to



FIG. 14.—PAINTED TERRACOTTA PILLARS WITH DOVES; BELONGING TO EARLY SHRINE.

the cult of the same Goddess that we find at Knossos, and that there, as here, we have to recognise an example of the setting up of trinities of baetylic pillars representing the same divinity.²

The conclusive evidence now before us that the pillar-cult of a Dove Goddess³ goes back, in Crete at least, to the prae-Mycenaean period is of

¹ See *op. cit.* p. 58-60/4.

² In the monograph above cited (p. 42) I had already ventured to suggest this explanation of the triple pillar cells of the Mycenaean dove-shrines surmounted as they are by a single altar.

³ As pointed out below (pp. 98, 99) the dove is primarily the image of the divine descent and of the consequent possession of the baetylic column by a spiritual being. This is not necessarily a female divinity, for the dove also appears as the "Messenger" of Zeus, but the evidence seems to show however that it had early attached itself as a special attribute of a Goddess in the Aegean lands.

first-rate importance in its bearing on the origin of the cult itself, and its relation to the parallel religious phenomena presented by the worship of the Syrian Semiramis¹ or the Phoenician Astartè. The crude view that the little dove shrines of Mycenae were mere import articles from Phoenicia has already almost died a natural death. The divine associations of the dove were a common heritage of primitive Greece and Anatolia, and it is a significant fact that the principal centre of the cult on the coast of Canaan was 'Philistine' Askalon, whose mythical founder Askalos was the brother of Tantalos the founder of the Phrygian dynasty and father of Pelops. We are thus led to an ethnic quarter that had a very intimate relation with Minōan Crete. A Palace shrine, described below, shows us a later stage in the local cult of the Dove Goddess in association with that of the Double-Axe (*see below*, pp. 100 *seqq.*) and makes it probable that the Cretan Rhea in her earlier aspect was also a 'Lady of the Dove.'

It is possible that there are here parts of more than one shrine, since there are columns of varying sizes. A characteristic of the walls of these edifices is the chequer-work of black and white indicating either actual masonry or a stucco coating in imitation of it. Identically coloured chequer-work occurs in the Temple Fresco. The stonework is broken at intervals horizontally by square-cut slightly projecting cornices, upon the white ground of which is painted a series of red disks which seem to represent the round wooden beam ends of Knossian wall-construction reduced to a mere decorative reminiscence. In one case what appear to be four somewhat narrow window-openings are seen above a substructure of the kind described above.

A part of a square altar with similar chequers surmounted by a plain cornice shows a pair of sacral horns rising above one face and part of another on a second face imperfectly preserved. The square altar recalls one constructed of isodomic masonry, with 'Horns of Consecration' above it, seen on a steatite pyxis from the site of Knossos,² and the presumed altar bases found in the Palace courts probably belonged to similar structures. Four other examples of miniature sacral horns were also found.

A base with incurving sides recalls another familiar adjunct of

¹ M. Salomon Reinach has well shown, *La Sculpture en Europe avant les influences Gréco-Romaines*, p. 561 *seqq.* (*Anthropologie*, VI.), that there is not the slightest reason for deriving the Dove Goddess from Babylonia.

² *Myc. Treas and Pillar Worship*, p. 103, Fig. 2.



FIG. 15 a.

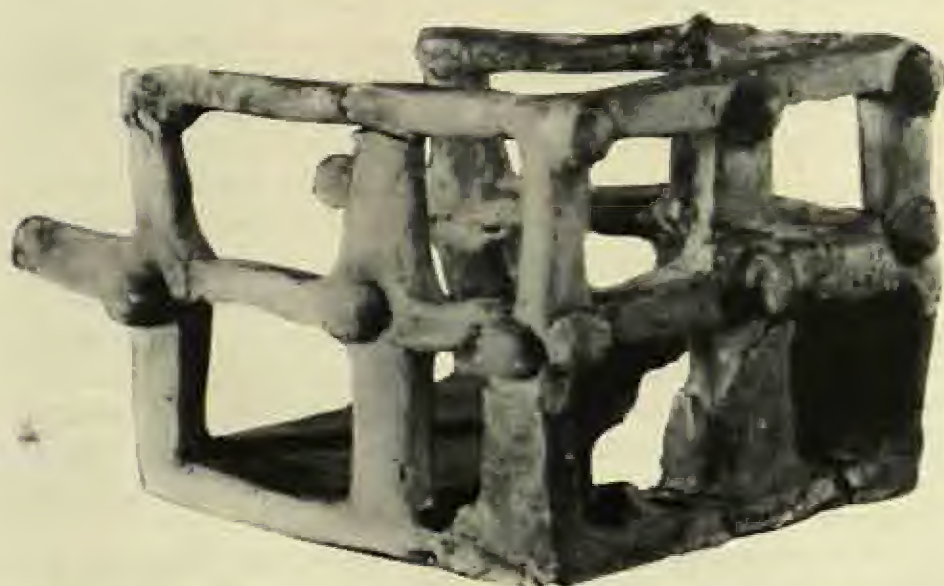


FIG. 15 b.—PORTABLE SEAT OF DIVINITY IN PAINTED TERRACOTTA (SLIGHTLY REDUCED).

Mycenaean religious furniture. The present example resembles a base, with the sacral horns above it, before a triple group of sprays, engraved on a crystal lentoid found in the Idaean Cave. The scene on the gem connects itself with the cult of a group of sacred trees, and a female votary is seen before the base blowing a large triton shell,—apparently a ritual function resorted to with a view of calling down the divinity. It is interesting to note that among the accessory objects found with the remains of the terracotta Sanctuary were parts of three miniature triton shells, the clay spires of which are painted alternately red and white.

A remarkable object remains to be described (Fig. 15*a* and *b*). At first sight it looks like a miniature car with a seat at the back, in front of which are visible what seems to be the roughly modelled extremity of a seated figure. The open wooden framework and joints are clearly rendered and there project in front what look like truncated shafts. On the other hand there is no trace of any attachment for wheels, and it may well be doubted if wheeled vehicles existed in Knossos in the early period to which these remains belong. The shafts of a car moreover would be attached to its floor, and not, as here, to the middle of the seat.

On the whole therefore, it seems safe to regard it as a kind of palanquin or sedan chair, and this view is confirmed by the traces of broken off shafts behind, answering to those in front.¹ The Priest Fresco referred to in the previous Report seems to connect itself with a figure borne aloft in some kind of chair, and we have here perhaps the *sella gestatoria* of a divinity or priest.

§ 9—FURTHER DEVELOPMENTS ON THE QUADRUPLE STAIRCASE.

The ground-floor walls and piers of the area that includes the Room of the Olive Press and the Corridor of the Bays give, as already noticed section by section, the outline of a great Megaron above, the plan of which seems to have been practically identical with that of the great upper hall of the Palace of Phaestos. It is probable that the Quadruple Staircase discovered in 1901, besides leading to the Central Court immediately South of this hall, communicated with the Megaron directly by a doorway in its South wall.

It has already been noticed in the last Report that a block by the third landing of this staircase showed the outlines of the ends of three steps

¹ The breaks are wrongly restored as knobs in Fig. 15*b*.

ascending North, and supplied the evidence of a fourth flight of stairs. Another similar block originally found above the second landing proved on examination to bear the marks of the ends of three more steps belonging to the upper end of this fourth flight where it reached the level of the Central Court. At the cost of much labour this important block has now been replaced in the position that it had occupied previous to its fall. (See Fig. 23.)

The leaning position of the thick rubble wall that formed the division between the upper staircases involved a far more difficult problem. It had heeled over to such an extent above the third flight as to threaten the destruction of both the stone stairs and the parapet beyond. It was impossible to prop it up adequately and it became necessary to resort to heroic measures. I therefore had a deep incision made at a low level on either side, wedges being at the same time inserted in the slit on the side to which it leaned. The wall was at the same time cut across transversely at the point where the window opening between the two staircases lessened the amount of cutting necessary. The whole mass was then cased with planks on either side, and bound round with ropes so as to prevent its disintegration. A wooden framework firmly buttressed against the inner terrace was now set up to act as a stop, its face answering to the original position of that of the wall on this side. Sixty men, harnessed by ropes to the plank-encased wall-section, were now stationed on the terrace above the inner staircase, and at a given signal the tug of war began. There was a moment of great suspense, but the whole mass moved homogeneously and the wall righted itself in its original position. Stones and cement were ready to fill up the wedge-shaped opening along the outer staircase, and the work was complete.

An interesting light on the former-decoration of the Quadruple Staircase seems to be thrown by a plaster fragment which had fallen into the adjoining 'Court of the Distaffs' (see below, p. 63 *seqq.*) apparently from one of its upper walls. It represented part of a brilliantly coloured palmette frieze.

§ 10.—CONTINUED EXPLORATION OF THE EAST-WEST CORRIDORS:
THE 'PERCENTAGE' TABLETS.

The Lower Corridor leading Eastward from the foot of the Quadruple Staircase and the North end of the Hall of the Colonnades had only been very partially explored in 1901.

The doorway leading into this passage from the Hall of the Colonnades was now opened (see p. 2, Fig. 1); the carbonised remains of its original wooden jambs being as far as possible protected by the solid wooden framework that it was found necessary to insert for its support. The doorway opening from the Corridor to the Hall of the Double Axes was at the same time cleared and supported with masonry as well as woodwork.

The excavation of this Westernmost and finely paved section of Corridor was a work of exceptional difficulty. This was due to the fact that the upper tiers of masonry belonging to this section of the light area of the Hall of the Double Axes had subsided a good deal in the direction of the doorway communicating with the Corridor and gave rise to a serious thrust on that side. The cause of this subsidence was discovered to be the original existence of a large double window with wooden framework, which had been introduced at this point with the object of lighting the Corridor from the open area at the end of the Hall of the Double Axes (see Fig. 21). This opening had been filled with fallen rubble, forming a very insecure support, and it was found advisable to support the wall on the inner or Corridor side by flat brick buttresses arched together.

The Lower East-West Corridor itself was excavated from above, the remains of the steps and pavement of the Corridor above it being carefully supported in their original position. At the same time the abundant fallen fragments of the upper pavement were collected and reconstituted at their former level, it being necessary in order to do this to build a solid timber framework from one end of the lower Corridor to the other with a platform above by means of which both the existing and the reconstituted parts of the upper pavement were maintained in position (Fig. 16). The pavement of the Upper Corridor was about 4.20 metres above the floor of the lower, its height representing that of the upper floor throughout this quarter of the Palace. The Eastern section of the lower Corridor, from the door of the Hall of the Double Axes onwards, showed no traces of

the fine gypsum paving that had continued to that point. The walls, however, had been provided with a similar casing of gypsum plaques.

The East end of this Lower Corridor is cut short in its direct course by the substructures of the stairs that form the continuation East of the Upper Corridor. Thus diverted, the lower passage opens on its North side on a small rectangular area leading to the Room of the Wooden



FIG. 16.—VIEW IN LOWER EAST-WEST CORRIDOR (LOOKING E.).

Posts,¹ and thence to an Eastern terrace edge. The gangway between this small area and the room beyond is flanked by a pillar originally of timber and rubble construction supporting a large gypsum block above, belonging to the upper storey, and which had been visible above the level of the ground on the East slope before the excavation began.¹ The pillar rested

¹ This block was maintained in the position in which it was found by means of wooden props, till the disintegrated pillar that had once supported it could be replaced by one of stone. This has now been done, and the block is thus permanently fixed at the level at which it was found.

on a square base rising from a breastwork or balustrade, the upper part of which consisted of flat gypsum slabs. Beneath this gypsum coping was a break of 20 centimetres between it and the masonry below, backed by a core of plaster and rubble, originally contained in a timber casing, a form of construction common in the Palace, and well illustrated by the Throne Room and by the bath-chamber to be described below.¹ The space above the gypsum slabs, between the pillar and the wall at the other end of the breastwork, had been left open as if to give light to the Room of the Wooden Posts. This circumstance, and the necessity of lighting the East end of the lower Corridor, makes it probable that the small rectangular area in question had served as a light-well, and was entirely open above. It is to be borne in mind that it was on a higher stratum of this area and the adjoining space to the West of it that the deposit of the painted high reliefs in *gesso dure* was found in 1901, and they may well have formed part of the decoration of an upper gallery or portico connected with the great Eastern Megaron and overlooking this light area.

The Lower East-West Corridor thus cleared, and with the flooring of the Upper Corridor replaced above, forms an imposing gallery—about 2 metres in breadth and 4 in height (Fig. 16). Its length is 14 metres or, adding the Northern arcade of the Hall of the Colonnades, which is practically its continuation, 23 metres. Only fragmentary remains, and these in a very much burnt condition, were found of the elaborate painted dado which seems to have adorned this gallery above the wainscoting of gypsum slabs. Its design was characterised by an oval beading, found elsewhere in the Palace decoration, and which recurs in some of the ceiling patterns of XVIIIth Dynasty Egypt.

The Upper East-West Corridor, which seems to have had the same internal dimensions as the Lower, attains, together with its staircase and the section corresponding with the North Gallery of the Hall of Colonnades and the second landing of the Quadruple Staircase, a length of 40 metres. The steps up from the lower terrace level were originally twenty in number,² of which fifteen were preserved, while the missing five—which had bridged over the entrance of the lower passage—have been reconstructed. The view from the West end of this Corridor looking along the upper Gallery of the Hall of the Colonnades towards the third flight of the grand Staircase is one of the most striking in the building (see Fig. 17).

¹ See p. 52, 53 and Fig. 27.

² Not fifteen, as stated in *Report B.S.A.*, vii, 1901, p. 99.



FIG. 17.—VIEW LOOKING WEST FROM UPPER EAST-WEST CORRIDOR.

Extensive remains of deposits of inscribed tablets and seal impressions were found, partly above the pavement level, along the line of this Upper Corridor from the head of its Eastern Staircase to the point where it enters the Gallery of the Hall of Colonnades. It seems probable therefore that there had originally existed above it some kind of elongated chamber, flanking, and on the same level with, the Great Megaron above the Olive Press area, and that this had been used for the storage of these clay archives.

With the falling in of the floor of the upper East-West Corridor large masses of tablets and seals belonging to the same series as those found in 1901, above its floor level, had been precipitated into the Corridor below. During the continued exploration of this lower stratum, which resulted in the clearing out of the Lower Corridor, great numbers of inscriptions were found, raising the total number from this deposit to over 450, more than a hundred of which are practically perfect. This is the largest hoard discovered. The tablets exhibit formulas the general purport of which is very uniform, and the great majority of them present figures referring to three different items of account, the total of which when added together amounts to 100. It appears, therefore, that they relate to percentages, and they thus supply a striking proof of the prevalence of the decimal system in Minōan Crete. From the fact that the bulk of the deposit extended along a line of about ten metres, it is probable that the tablets were contained in a series of chests. Among the seals found with them were several impressions of what we are led to regard as having been a royal signet, exhibiting a seated Goddess offered a cup by her attendant, of which a counterfeit matrix in clay was found in 1901 in a room above the South Terrace.

§ 11.—GOLD PENDANT IN FORM OF A DUCK.

About a metre below the floor level of the Upper East-West Corridor were found a part of a thin silver blade and a few articles of jewelry. These consisted of two globular beads, one of glass, the other of solid gold, and a gold filigree ornament in the shape of a miniature gold duck (Fig. 18). It was perforated to be used as a pendant, and evidently belonged to the same necklace as the beads.

Like the small gold lion found in 1900, the present jewel supplies an interesting example of granular decoration of gold work, though in this case

the grains are less microscopic than those of the gold lion. Both the lion and the duck are constructed in the same manner by means of two thin plates welded together above and below, the amount of precious metal employed being thus economised to the greatest possible extent.

The duck as a bead or pendant of 'Mycenaean' fashion in Crete was already known to me from two examples seen in the East of the island. One of these was found some years back at Palaeokastro. It is of red cornelian perforated longitudinally (Fig. 19), and shows on its lower face a rude intaglio of a ship. Another specimen of a similar cornelian bead also came under my notice in the same Cretan region. But these duck



FIG. 18.—GOLD PENDANT IN FORM OF DUCK (}).

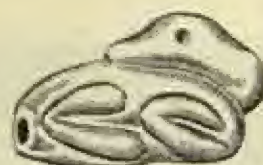


FIG. 19.—CORNELIAN DUCK BEAD (}).



FIG. 20.—EGYPTIAN DUCK HEAD (}).

beads are simply an imitation of contemporary Nilotic types. There is in the Ashmolean Museum¹ a bead of this form also of red cornelian (Fig. 20), which might have stood as the prototype of that from Palaeokastro, with a cartouche below containing the name of Amenhotep III. (c. 1400 B.C.). The gold pendant bead must also be traced back to the same class of Egyptian models.

§ 12.—THE HALL OF THE DOUBLE AXES AND ITS SOUTHERN PORTICO.

In the doorway leading from the Lower East-West Corridor to the Hall of the Double Axes was part of a steatite vase presenting a variety of the usual 'caliciform' type with a double series of petals. As already

¹ Fortnum Collection.

noted, the former existence of a large window, opening from the light area of the Hall into the Corridor, now explains the appearance of collapse that characterises the upper courses of limestone masonry belonging to the section immediately to the right of the doorway on entering (Fig. 21). The whole upper part of the wall has only been saved from utter ruin by the fallen materials from above that had found their way into the aperture.

The horizontal cavity which runs along the West and South sides of the light area of this Megaron between the fourth and fifth courses of masonry was wrongly interpreted in the previous Report.¹ This gap in



FIG. 21.—VIEW IN HALL OF DOUBLE AXES SHOWING COLLAPSED WINDOW OFF LIGHT AREA.

the masonry, as there noted, had been partly filled with coarse lime and terracotta cement in which were visible a succession of round sockets originally occupied by sections of wooden beams. It was suggested that these beams had projected into the end of the Hall, where they had formed the base of a kind of raised wooden platform.

¹ *Report, Gr.* 1901, p. 113.

But the examples of construction since supplied by the porcelain houses and miniature shrine, and the further evidence afforded by neighbouring rooms has now made it clear that the round sockets in question contained nothing more than short sections of beams answering in length to the thickness of the wall. What we have here to deal with is, in fact, merely an architectural survival derived from the old rubble and timber construction, a regular feature of which was the laying of courses of short round beams at intervals in the walls, the ends of which were visible in the face of the building separated by plaster-covered zones or panels.

The round beam ends so much affected by the Mycenaean builders were translated into stone or plaster in the shape of rosettes and coloured disks which are their decorative survival. It is obvious that the wooden beam ends thus arranged symmetrically along the walls of the light area of the Hall of the Double Axes were masked by ornamental features of this kind. Its prominent position makes it not improbable that the surface of the cavity in which the round beam ends lay was covered, in this case, with decorative reliefs in metal-work, representing rosettes, with or without connecting spirals. These, like all other objects of metal on which the occupants could lay their hands, were doubtless removed at the time of the destruction of the Palace.

Nor is direct evidence wanting as to the general character of the design here exhibited. The band formed round the light area by the gap between the fourth and fifth courses of masonry was in fact continuous along the interior walls of the Hall of the Double Axes immediately above the gypsum slabs (almost exactly 2 metres in height) which formed their lower lining. There are here, indeed, no traces of round beam ends, but there are visible in places the sockets of horizontal beams which formed the backing of the plaster along this zone.

The same system of construction is continued uninterruptedly by a small passage, to be described below, to an inner hall and a bath chamber lined to the same level by gypsum slabs. But here, as will be shown in Section 15, the space immediately above the groove left by the horizontal beams is still filled in part with a painted frieze of spirals and rosettes. The intensity of the conflagration seems to have destroyed the frescoes in the body of the Hall of the Double Axes, but near its Southern Portico portions of painted frieze were found consisting of spirals and

rosettes and answering exactly to that in the adjoining bath-room. There can be little doubt, therefore, that this identical design followed the same zone in both rooms, and it is reasonable to suppose that, what is practically its continuation, the decorative band, namely, *ex hypothesi* of metal work that once masked the gap in the masonry of the light area, exhibited a closely parallel design.

Analogy might lead one to suppose that the gypsum slabs that originally lined the whole of the interior walls of the Hall of the Double Axes were coloured. But the corrosion of the surface on these lining slabs here and elsewhere has obliterated the evidence of this. These inner walls were divided into a succession of bays by fine upright posts of wood, between which was stone and rubble work, the whole surface being covered with a clayey plaster against which in turn the gypsum lining slabs were applied to a height of two metres.

Further exploration of the Eastern end of the Hall gave rise to an interesting development in the shape of a second Portico facing South (Fig. 22). This Portico, at right angles to that to the East, consisted of a massive corner base of limestone 1.10 metres square, common to both colonnades, three round column bases (.70 in diameter) and a pilaster in the wall-line to the West answering to the corner pillar.¹ Near the bases were masses of carbonised wood representing the remains of the pillars. Stone pavement extended to the outer line of the Portico, beyond which was a rectangular area about 4.30 metres wide and over 11 in length with a cement floor.

Above the level of this open space, especially along and in part overlying the good limestone courses that formed the lower part of its Western boundary wall, were found quantities of fallen stucco with fresco designs. This deposit, which also extended into the space beyond the wall, exhibited designs of fish and a female figure, described below, and it probably belonged mainly to the 'Queen's Megaron,' excavated on that side. A piece of bas-relief in coloured *gesso duro* was, however, of a character which points to a more public position, such as an open gallery. It consisted of a man's thigh life-size with the edge of a brilliantly coloured loin-cloth. With the plaster fragment were found fragments of painted Mycenaean pottery of the finest Later Palace style. About two metres beyond

¹ The spaces between the columns were 1.64 and 1.60 m., between the East column and pillar 2 m., between the West column and pilaster 1.95 m.

Village of Mahayrajchou

Valley of ancient
Karens

Corner Block
stepped
down E.



Wood and Rabbite Pillars above Lower Bases
Reconstructed to Support Upper Pillar Bases
and Pavement Formed in Position.

Column
Base.

Like of
Pillar Bases.

Column
Base.

Like of
Column
Bases.

Corner
Pier.

FIG. 22.—VIEW OF EASTERN SECTION OF HALL OF DOUBLE AXES SHOWING E. AND S. PORTICOES.

Pillar Bases
on Upper
Floor Level.

Part of
S. Wall of
Queen's
Megaron
including
Private
Sanctuary.

Part of
E. Wall of
Queen's
Megaron.

the Northern column base of the East Portico of the Hall of the Double Axes is a curiously cut limestone block on a stepped pedestal, which seems to have been one of an outer line of piers in connexion with a broad line of steps descending East, that has now disappeared. The course of a large stone drain runs in front of the line.

The Hall of the Double Axes, with its two-fold Portico, formed a spacious chamber which, excluding the rectangular court to the South, embraces an area of somewhat over 250 square metres. It has the appearance of a large reception room, the post of honour in which, perhaps, marked by a movable throne, was probably against the North wall facing the middle of the Southern Portico and approached by the eleven openings between the pillars.

§ 13.—UPPER HALL OF THE DOUBLE AXES.

It has already been mentioned that a series of pillar bases and the intervening sections of pavement belonging to the room above the Hall of the Double Axes were found in position, only slightly sunk below their original level. Two further pillar bases subsequently came to light, corresponding to two of those found below facing the Southern Portico. The first series had been already temporarily supported in their position by means of a wooden scaffolding which, both in the case of these and the bases, has now been replaced by pillars of wood and stucco answering as nearly as possible in character to those which had originally stood there (see Fig. 22).¹ These rest on the original limestone bases.

A further hint as to the original construction of this upper room was the discovery above the floor level of the Southern Portico of a slab with a segmental cutting made for the insertion of part of the diameter of a column, like the parapet slabs that flank the impluvium of the Throne Room. We have here a valuable indication of the arrangement adopted in upper galleries answering to the Southern and Eastern Porticoes below. It is obvious that on the upper galleries some kind of breastwork was needed, and the analogy of the Throne Room makes it probable that a continuous stone bench ran here between the columns, as shown in Mr. Fyfe's upper storey plan on p. 57.

¹ The newly made supporting pillars with their corner posts of wood are clearly shown in this figure.

§ 14.—THE DOG'S LEG CORRIDOR AND THE DOMESTIC QUARTER OF THE PALACE.

Immediately opposite to the door at the upper end of the Hall of the Double Axes communicating with the Lower East-West Corridor, was another corresponding doorway. This, on being opened out and supported above by a flat arch as a protection against lateral thrust, gave access to a short paved passage with a turn at both ends, and to which from its shape the name of 'Dog's Leg Corridor' has been given. It is evident that this double turn greatly enhanced the privacy of the room beyond.

The Dog's Leg Corridor is finely paved with limestone slabs, and on its North and West sides retains the wainscoting of gypsum slabs, each about two metres in height and one metre in width, above which ran the groove already referred to, originally fitted with wooden beams laid horizontally. Above this, again the wall construction, largely belonging to the upper storey, was preserved for a height of over five metres from the floor level.

This short corridor, after passing a limestone pier and plinth on the left, gave access to an interesting and quite original hall. This hall formed the principal room of a self-contained quarter of the Palace, having none of that semi-public character noticeable in the case of the Halls of the Double Axes and of the Colonnades. There is every appearance that we have here to deal with suites of private and domestic apartments, somewhat carefully secluded from the busier section immediately to the North of this with its great staircase and through corridors in direct connexion with stately halls that must have mostly served as a gathering-place for the men. In this quarter, on the other hand, we note on every side arrangements for securing privacy and comfort, together with sanitary conveniences in some ways ahead of anything the world was to see for the next three thousand years.

We have here (*see* pp. 56, 57, Plans, Figs. 29, 30) the centres of the domestic and family life of the Palace. To apply to this section indeed the oriental name of 'Haremlik' might convey a wrong idea, since there is no question—witness the miniature frescoes—of a rigorous separation of the sexes in the 'House of Minós.' We are at liberty to believe, however, that this secluded quarter was in a special way the domain of the women, and the distinctive name of the 'Queen's Megaron' has been accordingly given here to the most stately withdrawing room of this region.

§ 15.—THE QUEEN'S MEGARON WITH ITS BATH ROOM AND REMAINS
OF WALL-PAINTINGS.

The hall here described as the 'Queen's Megaron' was found to be divided into an inner chamber, with an adjacent bath-room and elongated area, and an outer part consisting of a portico opening on another enclosed area that served as a light court on that side.

Of the back wall of this outer area, which separated it from the space in front of the South Portico of the Hall of the Double Axes, only two, or, in places, three courses remained in position. These courses are of good limestone masonry, and the disappearance of the upper part perhaps implies that it consisted of rubble masonry and timber, with the usual plaster facing. A later wall of poor construction had been built near the outer line of the Portico within. At the same time the masses of painted stucco that had presumably covered the original back wall of the light area had been cast aside and formed a heap above and on each side of its remaining lower courses.

This demolition and poor reconstruction leads us to a series of related phenomena that made themselves apparent not only in the 'Queen's Megaron' itself but throughout the whole of the deep cut section of the Palace South of the Quadruple Staircase and the Halls of the Colonnades and of the Double Axes. Throughout this area there were abundant signs, like those already noted in the Southern basements and in the rooms West of the Northern entrance, of a re-occupation in the mature Mycenaean Period. There is some evidence that the intensity of the conflagration which has left such obvious traces in the great halls to the North of this area was on this side so far mitigated that some even of the upper rooms were left in a more or less habitable state.

In clearing away in successive horizontal sections the deposit above the Queen's Megaron, which, towards its Western limit, attained a depth of over 6 metres, a series of large stirrup vases and amphoras were found, partly piled one over another, above the remains of pavement belonging to an upper floor level (See Fig. 23). It seemed indeed as if a large part of the original upper floor had been used as a magazine for these vessels, which with their coarse decoration of octopuses, or often simple bands, in dull colours, must be regarded as a characteristic product of the

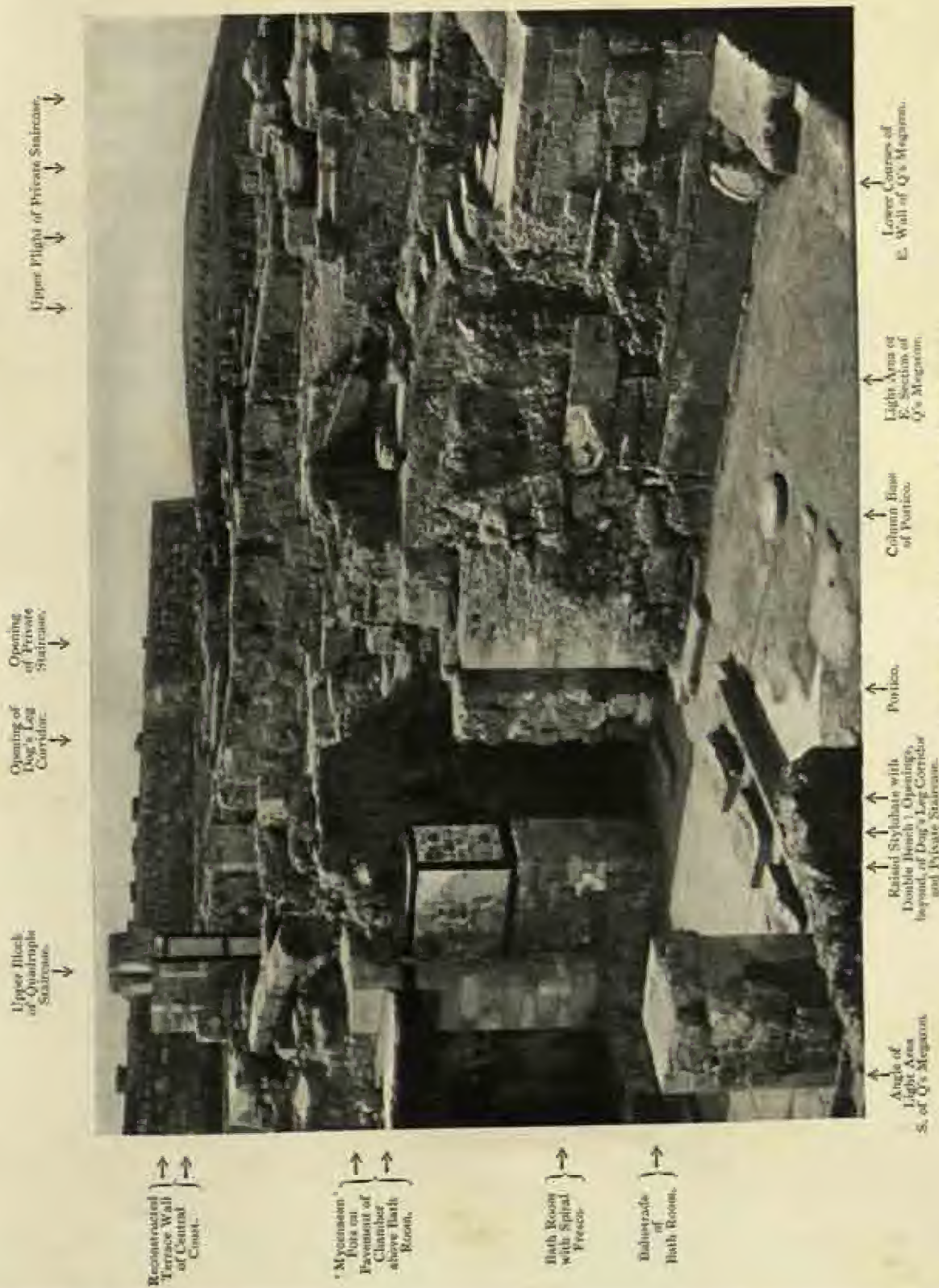


FIG. 23.—VIEW FROM S.E. CORNER OF QUEEN'S MEGARON.

Mycenaean Period proper. Over the body of the hall the remains of the upper floor level had fallen in at an early period, and the vases were found for the most part in a broken condition at a lower level. Above the little bath chamber however, thanks to a later supporting wall built above the balustrade, the store had been less displaced, and many vases in perfect condition were ranged against the walls of the upper storey room.

It looks as if shortly before the final desertion of the building a comprehensive plan of restoration had been set on foot throughout the region above defined. On approaching the floor of the Megaron below, there was found everywhere a stratum of lime, and the adjoining bath chamber had been used as a special deposit of the same material, while a late *pithos* full of lime stood in its entrance passage. A small chamber immediately South of the portico of the Megaron was found moreover to have been actually turned into a kiln, in which were found a number of mature Mycenaean cups and vases. It was obvious that the plaster on the North wall, as on the destroyed upper part of the East wall and again in the corridor leading to the inner rooms to the West, had been deliberately picked away and thrown aside in the heaps in which it was found. Oddly enough the earlier decorative plaster has only remained untouched in the upper part of the walls of the bath chamber, which itself had been converted into one of the chief receptacles for the restorer's lime.

It was not till after the removal of this thick lime deposit that the internal structure and arrangements of the Megaron could be fully made out (see Fig. 23). Both the interior part and the portico beyond were paved with fine limestone slabs, the pavement being replaced as usual by cement in the light areas to East and South. A more original feature was supplied by a raised base or stylobate which formed a division between the two halves of the Megaron, leaving a passage only at its Northern end.

The best idea of this structure will be given by the annexed plan and section (Fig. 24*a* and *b*), showing its existing state, and by the elevation and restored section (Fig. 25). The base was formed of limestone blocks, 26 cm. in height, faced with gypsum slabs, the whole breadth of the base being almost exactly a metre. Along the centre of this ran a raised ledge of varied composition, stone, rubble and plaster, on which were laid gypsum slabs with raised intervals between forming the bases of narrow piers. The lower ledges on either side of this central system had been covered with wooden boards, a good deal of which was preserved in

a carbonised state, and the surface of this again was coated with cement. This plaster covering curved up against the slightly bevelled edges of the centre slabs (see Fig. 25) so as to get a good grip of the wood and at the same time to form a curved termination of the seat back similar to that found in the throne, and other examples. The stylobate thus fulfilled a two-fold function. It acted as the base of the narrow pillars, which, while leaving broad light openings, supported the room above. At the same time it provided a double bench. This bench was, as we have seen, of comfortable con-

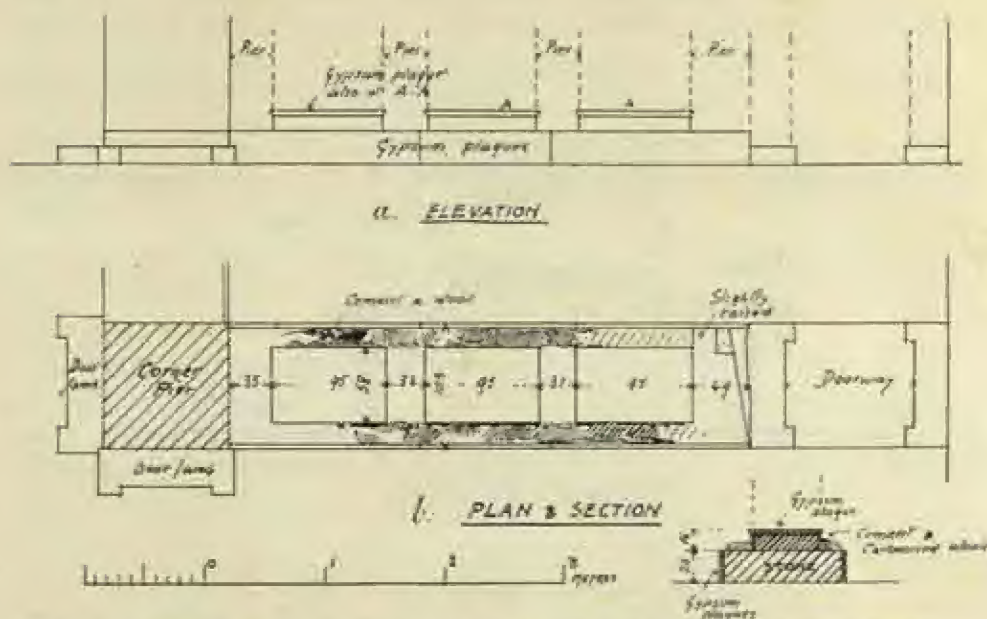


FIG. 24.—PLAN, SECTION, AND ELEVATION OF RAISED STYLOBATE WITH DOUBLE BENCH.

struction and the woodwork certainly projected sufficiently beyond the line of the stone to give the required depth for a seat. The moulded stucco surface of this was doubtless also covered with cushions.

The total height of the seat from the ground may have been about 30 centimetres. This is lower than the benches of the Throne Room, but considerably higher than the plaster seat of the "Cook" in the small chamber behind it. It must however be borne in mind that this last mentioned seat was specially arranged for a person, presumably of menial condition, engaged in preparing food on a table only slightly raised above

the floor level. It cannot therefore be regarded as conclusive for the height of the Minōan ladies' seats. On one of the Zakro gems for instance¹ a female figure, probably intended for a Goddess, is seen seated on a kind of stool without a back, the top of which comes nearly to the level of her bent knee. But there is no reason to suppose that the benches in the 'Queen's Megaron' were reserved specially for women. This was rather the general withdrawing-room of the family quarter of the Palace.

Along the South side of the inner part of the Megaron, facing the door opening from the 'Dog's Leg Corridor,' was another similar stylobate.

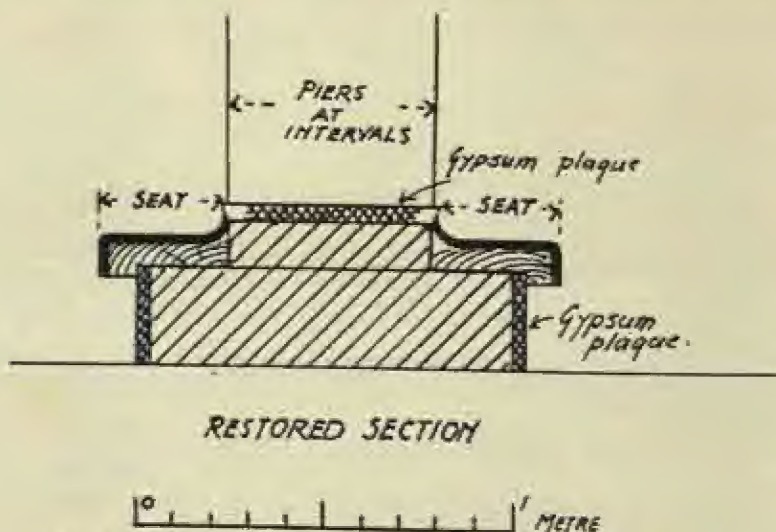


FIG. 25.—RESTORED SECTION OF STYLOBATE WITH DOUBLE BENCH.

formed in the same way of limestone blocks with a facing of gypsum plaques. It was of the same length as the other, but in this case the seat had only existed on the inner side. There was indeed no passage on this line into the light area beyond,—the stylobate running without a break from a square inner pier of good ashlar masonry to another pier forming the South-West corner of the room. The upper structure here has disappeared, but the former existence of a similar layer of woodwork was evidenced by certain mortises and dowel holes on the upper surface of the limestone blocks. From the fact that the length of this stylobate was

¹ D. G. Hogarth, 'The Zakro Sealings,' *J.H.S.* xxii., Pl. VI 3; and cf. p. 77. Fig. 2.

the same as the other, we may assume that it supported the same number of pillars with equal intervals between them.

The openings here were devised to give light from a narrow elongated area, about 1.40 metres wide, which derives a special interest from the character of its South wall. This wall consists of exceptionally large blocks (about 2.38 metres in length by 0.68 in height) somewhat roughly faced, in contrast with the smooth ground surface of the later masonry, and incised with the spray or branch sign, larger and deeper cut than the signs of the existing Palace. The blocks, moreover, had a more distinct clay bedding (necessitated by the unfinished surface) than is usually found in the building. This was particularly conspicuous in the horizontal lines—attaining a thickness of about a centimetre. There can be no doubt that this is one of the earliest existing walls of the building, and that it goes back at least to the close of what may be called the 'Middle Minōan Period.'

Another interesting feature about this light area is that in order to enable the light to slant in to the adjacent hall, the wall—or rather the later addition to it—steps back above.

It seems certain that this light area was during the latest Palace period covered with a brilliant stucco decoration. A pile of this, perhaps torn down at the moment of the would-be restoration, lay in the innermost corner of the area and supplied the evidence of a quite unique method of relief. This is illustrated by the fragment exhibiting part of a bird shown in Fig. 26, *a, b, c*. The bird itself, which is on a white ground, has long curving wings and feathers of brilliant and varied hues, red, blue, yellow, white and black.

The moulding of the relief as shown in the side view (*b*), and section (*c*) does not correspond with any recognised canons of relief. The wing ends are executed in a kind of sharp bas relief, but the tail feathers can best be described as cut in intaglio. It looks indeed, as if an artist accustomed to the technique of gem engraving had transferred the process to moulded *gesso duro*. Such a combination of crafts recalls the early Renaissance.

The interior part of the 'Queen's Megaron,' namely that directly approached from the Hall of the Double Axes, was thus lighted by a double series of pillar openings, one looking towards its East Portico, the other facing the Area of the Bird Relief on the South, and both flanked by shapely

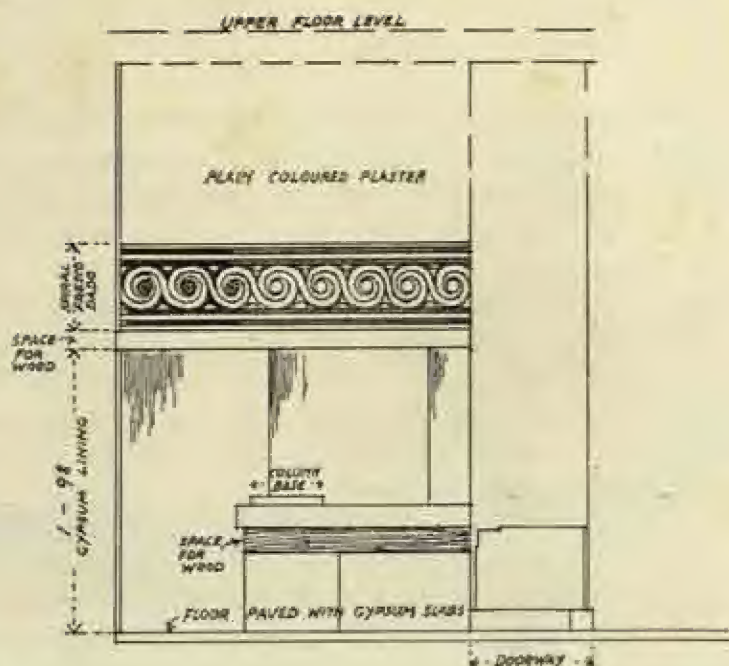


FIG. 26.—VIEWS AND SECTION OF PAINTED RELIEF SHOWING BIRD'S TAIL AND WINGS.

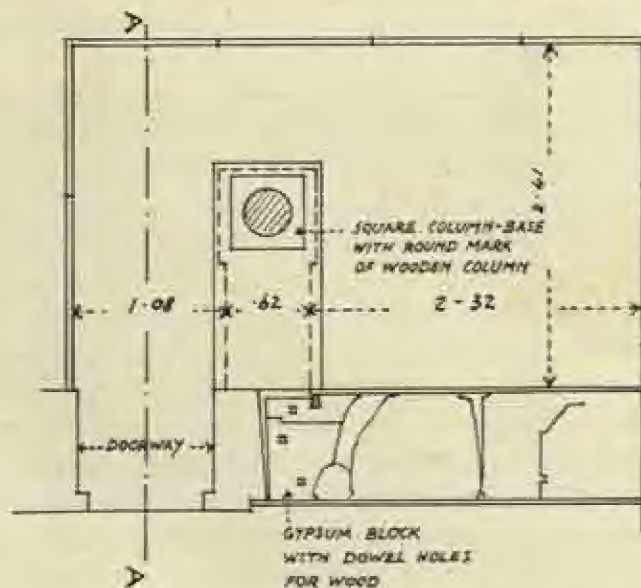
benches. In the North-West corner, immediately to the right on entering, was the small bath chamber already mentioned.

This bath-chamber, the details of which can be gathered from the annexed plan and elevation (Fig. 27, *a* and *b*), was flanked, like the Palace baths already described, by a balustrade, with corner and terminal piers. The latter of these was a column base, still showing the circular mark of a wooden column 31 centimetres in diameter. The corner pier had dowel-holes for the wooden part of a pillar of the usual composite construction. The walls showed the characteristic gap for plaster and woodwork below the coping slabs, and the limestone blocks below this were faced, like the neighbouring stylobates, by gypsum plaques.

This bath-chamber differed in an essential point from those found elsewhere in the Palace.



a. SECTIONAL ELEVATION ON LINE "AA"



b. PLAN



Fig. 27 a, b.—PLAN AND SECTIONAL ELEVATION OF BATH ROOM WITH PAINTED SPIRAL FRIZES.

It had no descending steps, the basin being on the same level as the floor of the adjoining Megaron. It was constructed for a portable bath, and in fact considerable remains of a large painted terracotta bath were found in the portico of the neighbouring hall, having doubtless been turned out when the bath-chamber was used as a lime-store.

Neither was this bath-chamber in any way an 'impluvium' like that of the Throne Room. The present chamber was roofed over, and the openings between the pillars here were not for letting in light into the adjoining hall, but for enabling the light of the Megaron to penetrate into the bath-room, where, however, privacy may at any time have been attained by drawing curtains between the pillars.

Apart from other evidence of the existence of a room above, the good state in which the interior of the bath-room was found may be taken to show that it had not been exposed to the weather. The gypsum lining slabs, about 2 metres in height, were here exceptionally well-preserved, and above the upper margin of these were considerable remains of a frieze of painted stucco, already referred to in the treating of the 'Hall of the Double Axes.' The central band of this frieze or dado, which was about half a metre in width, consisted of rosettes, or conventional marguerites, linked by running spirals, with half rosettes in the angles.¹

The communication from the inner part of the Queen's Megaron with its small bath room and double stylobate is confined to a single opening, which may be regarded rather as a passage-way between half pillars, like those of the Hall of the Double Axes, than a doorway proper. The outer portion of the Megaron thus entered, flanked by a bench answering to that on the other side of the stylobate, consisted of a paved portico with two column bases 65 centimetres in diameter, facing to the East the enclosed light-area already referred to. On the South a doorway led from the portico to a small square room (that used later as a lime-kiln) with two other doorways, one communicating with the Area of the Bird Relief, the other leading through a narrower chamber to a passage opening opposite the South Portico of the Hall of the Double Axes. There was therefore a means of access to the Queen's Megaron from the East, though evidently controlled by a strict system of guardianship and surveillance. Three separate doors had to be passed and two small chambers to be traversed to enter from this side.

¹ See D. T. Pyle, *op. cit.*, *Journal of R.I.B.A.*, 1902, p. 120, Fig. 43 (upper fig.).

In the North Wall of this outer section of the 'Queen's Megaron' were some exceptionally large limestone blocks—one 2·71 metres in length



FIG. 28.—WALL-PAINTING OF LADY, APPARENTLY DANCING.

by 0·72 high—several of them marked with the Double Axe sign. This wall, which formed part of the casing of the private staircase to be described below, had been entirely denuded of its stucco decoration. It is possible,

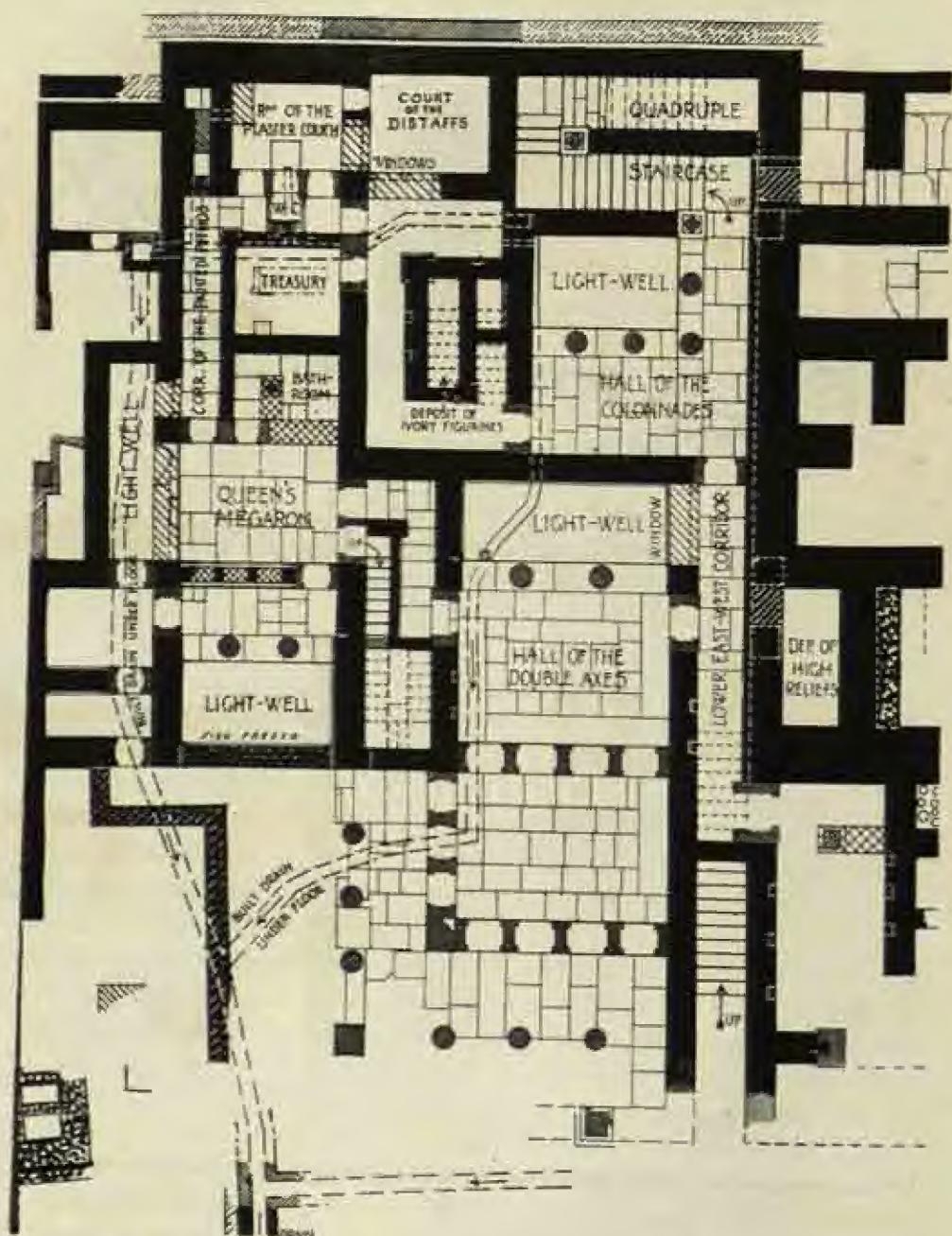


FIG. 29.—GROUND FLOOR PLAN OF DOMESTIC QUARTER AND ADJOINING HALLS.

DEEP PART OF EAST-SLOPE
PLAN OF UPPER FLOOR

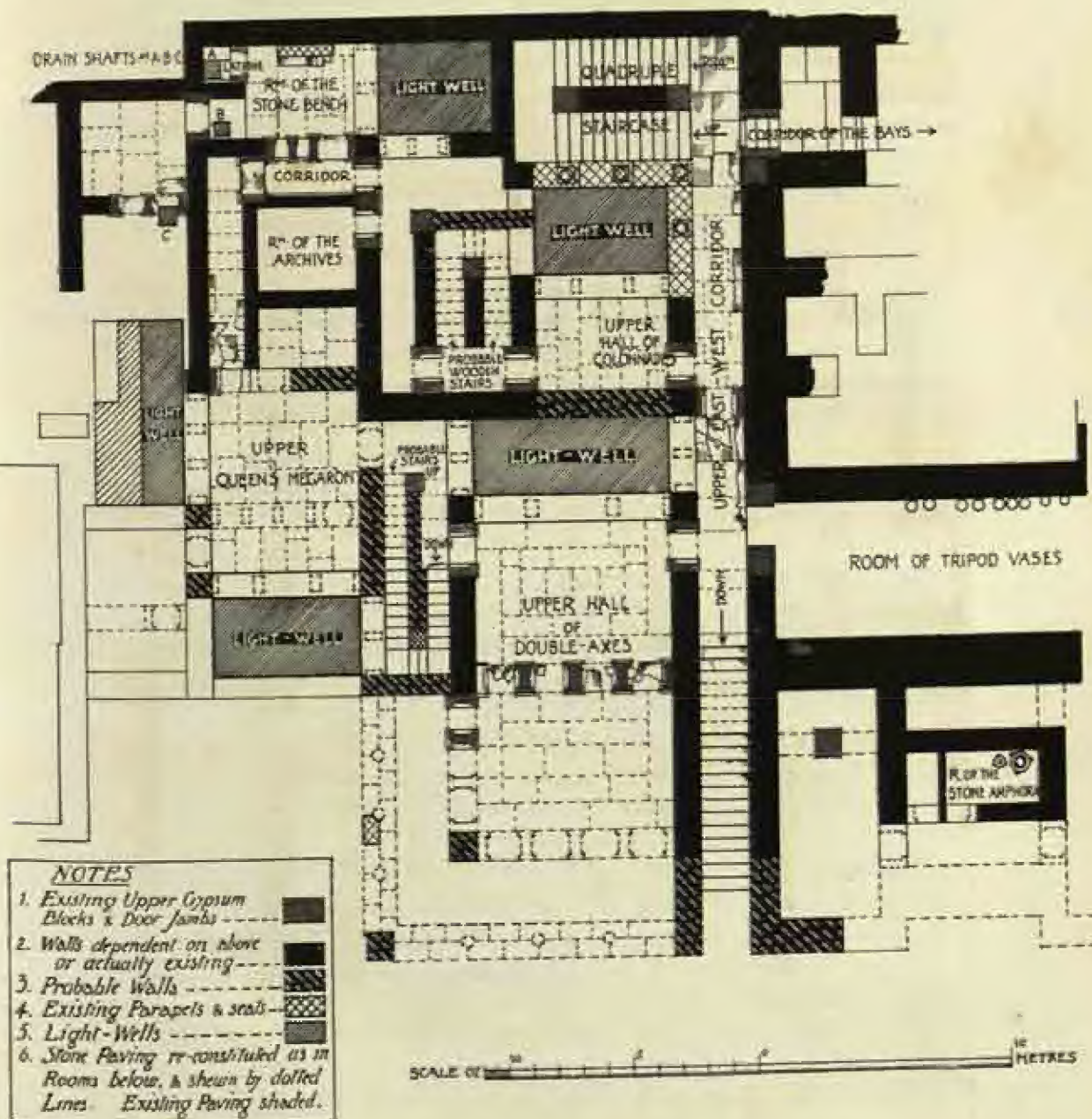


FIG. 30.—UPPER FLOOR PLAN OF DOMESTIC QUARTER AND ADJOINING HALLS.

however, that a spirited design of the upper part of a lady (Fig. 28) found at a low level in the neighbouring heap of detached plaster belonged to this space. The figure is about half the natural size, and seems from the way in which her tresses fly out in opposite directions to be engaged in somewhat energetic action, but her attire is not of the same masculine type as that of the female toreadors. She is clad in a jacket of the ordinary type, with a yellow ground and blue and red embroidered border, beneath which is a diaphanous chemise, its upper line showing clearly across the chest. Her left arm is bent and her right stretched forward. Her features are fairly regular, and a slight dimple is traceable at the corner of her lips, which, however, is hardly the *σμενὸν μεδίασμα* of Archaic Greek art. She is possibly one of a group of dancers like those that appear with raised arms on one of the miniature frescoes. Unfortunately a part of the right arm, which might have afforded some clue to the meaning of the design, is missing, but it is not difficult to believe that figures such as this, surviving on the Palace walls even in their ruined state, may lie at the root of the Homeric passage describing the most famous of the works of Daedalos at Knossos—the 'Choros' of Ariadné.

Of the character of the decoration of the back wall of the light court of the Megaron there can be little doubt. Of the heaps of detached pieces of painted stucco that lay along its line the most abundantly represented were derived from a great marine piece containing a large number and variety of fishes. The larger pieces of the design belonged to two dolphins and to a certain extent completed one another, one set belonging to the tail end, another to the head. Both these and the numerous smaller fry were most naturalistically rendered, and, though among the preserved fragments there were no flying fishes, there could be no doubt that the whole belonged to the same class as the marine fresco from Phylakopi.¹ The spirited character of the designs, the prevailing colours of the fish, blue of varying shades, black and yellow, the submarine rocks with their coralline attachments, and still more the manner of indicating the sea itself, proclaim identity of method. In both cases it was found advisable to reserve the different tones of blue for the fish themselves and to give their outlines greater relief by leaving the ground white, while at the same time the marine element was gracefully indicated by azure wreaths and coils of dotted spray. The spray and bubbles fly off at a tangent from the fins and tails, and give

¹ *Annals B.S.A.*, ix, Pl. III.

the whole a sense of motion that could not otherwise be attained. It is evident that the panel of similar fresco from the Melian site belongs to the Knossian School and may even have been imported ready-executed from Crete like some of the fine Palace pottery found in the same building.

The covering of the wall of the light area, facing the seat beneath the portico, with this marine design suggests interesting comparisons. The whole is the artistic substitute for a natural view, identical in intention with the landscape scenes that form such a favourite feature of the blind walls that shut in the smaller courts and areas of Italian villas, and which are supposed to cheat the eye with the illusion of a free outlook. On this side those seated in the adjoining portico might seem to see the fishes of the sea disporting themselves, while the flying bird of the area lighting the Queen's Megaron on the South may be taken to represent a fragment of a similar scene borrowed this time from the fields and woods.

§ 16—PRIVATE STAIRCASE FROM THE 'QUEEN'S MEGARON' TO *THALAMOS ABOVE.*

An interesting feature connected with the Queen's Megaron remains to be described. The right door jamb facing the entrance of the Dog's Leg Corridor, was found to have a double reveal indicative of a second doorway, the other jamb of which presently appeared. The fondness of the Palace architect for double doorways is conspicuous, and it seemed at first as if in this case this second portal was of a more or less decorative kind—leading perhaps to a small closet—the more so as the opening was partly blocked by a pier belonging to the wall of the adjoining corridor.

Even supposing that the upper part of the third door jamb, which consisted of wood and plaster, had been originally splayed back, the opening here could not have been more than 70 centimetres or rather less than 28 inches in width.

The surprising discovery was made, however, that this narrow opening nevertheless gave access to a stone staircase, affording a private means of communication with the upper-rooms. This staircase was 92 centimetres in width,¹ somewhat broader than its entrance and its lower flight was very

¹ The steps had 36 cm. tread and 12 riser.

well preserved. This consisted of a first flight of fourteen steps, a landing with three more, flanked by a square pillar, and an upper flight, originally consisting of nine or ten steps, of which seven were preserved. This upper flight led to a landing with a doorway, on the right of which both jambs were preserved, leading to the upper Hall of the Double Axes. The private staircase from the Queen's Megaron had the effect therefore of bringing this fine Upper Hall into the system of domestic rooms. The Upper Hall of the Double Axes had, in fact, no direct connexion with the more public Hall immediately below it, though it stood in communication with the Upper East-West Corridor.

Beyond this doorway the staircase landing merged in a short passage above the Dog's Leg Corridor and thus gave access through a second doorway (no longer preserved) to the upper room or rooms above the Queen's Megaron. From this, in turn, an Upper Corridor, part of the pavement of which has been preserved, led West to the upper storey room of the Domestic Quarter to be described below. (See Plan, Fig. 30, p. 57.)

Near the point where the first floor landing-passage of the Private Staircase would have entered the 'Upper Queen's Megaron,' a sunken block was found which reveals an interesting fact. This block, which resembles one on the first landing of the staircase and other staircase blocks found on the site, had sunk to the position in which it was found from an upper landing. In other words the staircase was originally continued to a second floor and there were at least three storeys in this part of the building.

In excavating the staircase a fine bronze chisel¹ was found together with fragments of fresco and a clay seal impression—a galloping bull with a fish below—a curious anticipation of the coin types of Thuri. The upper flight was partly choked with plain pottery belonging to the Re-occupation Period, including numerous pedestalled cups of the 'champagne glass' type.

§ 17.—THE BACK ROOMS OF THE DOMESTIC QUARTER: GROUND FLOOR. (SEE PLAN, FIG. 30, P. 57.)

Immediately South of the entrance to the Bath Room of the Spiral Fresco, another doorway, 87 cm. in width, leads from the Queen's

¹ 9½ cm. long, 0·7 broad at edge.

Megaron to a corridor which brings it into connexion with the back ground-floor rooms of this Domestic Quarter of the Palace.

At the entrance of this corridor stood a large *pithos*, both in form and decoration different from any of the jars found in the various Magazines. It was shaped like an ordinary tub, and displayed a zone of continuous spirals broadly painted in black. It had been filled with lime and set in the position where it was found (blocking the passage way) at the time of the Mycenaean 'restoration,' but it is by no means so certain that the *pithos* itself belonged to this later period. The painted decoration recalls the jars of the latest pre-Mycenaean period, lately found in Magazines below the floor of the Great Megaron at Phaestos. The shape on the other hand suggests the tub-like receptacles for flowers and shrubs that appear on the background of certain scenes on Mycenaean gems. This painted clay tub had been placed for security on the upper ledge of the Southern light area of the Queen's Megaron, and it is by no means impossible that this ledge may have been originally adorned with large pots of this kind containing flowering plants.

The Corridor of the Painted *Pithos* runs under the passage already referred to as leading from the Upper Queen's Megaron to the rooms on the same storey at the back, and of which on this side one of the door jambs and part of the pavement was found in position. The lower gallery would have been quite dark had it not been for a window immediately to the left on entering, the masonry forming the East side of which is splayed back—the effect of the squint being to afford passage for the maximum of light from the 'Area of the Bird Relief,' on the extreme corner of which it opens. The corridor, finely paved with limestone slabs, is about 1.40 metres in width; the walls on the South side show good masonry, that on the North being of somewhat rougher construction. The original stucco covering has for the most part been stripped off from both walls. At the point where the passage makes a sudden turn to the North, however, remains of the fresco-coating were still visible showing a band of spirals¹ resembling that of the bath room, but without rosettes and placed at a lower level. It runs at a height of 78 cm. from the ground and is 50 cm. in breadth.

The fact that the Corridor of the Painted *Pithos* does not run straight from one room to the other, but has a short turn, or rather double turn, is very characteristic of the Palace architecture in this region, and has been

¹ See D. T. Fyfe, *Journ. R.I.R.A.*, 1892, p. 111, Fig. 8.

already illustrated by the Dog's Leg Corridor. It seems to have been a device for insuring greater privacy.

At the North corner, where the short inner turn of the Corridor begins, was a square gypsum block and considerable remains of the timber frame of a flat arch about the height of an ordinary doorway, the masonry above which was found in position supporting the stone jambs and threshold of the corresponding turn of the Upper Corridor. The actual door to the inner room was not however at this point. Immediately beyond the arch the passage way was once more diverted by a partition wall of gypsum slabs, so that, to pass the door jambs that gave entrance to the room in question, it was necessary to turn once more to the right about.

The characteristic feature of the ground floor room thus approached, so far as concerns its interior arrangements, was an oblong platform of plaster-covered stonework in its S.W. corner, 1.50 metres in length by 0.80 in width. There can be little doubt that this was the support of some kind of bed or couch, and it recalls rectangular platforms of the kind in some of the Mycenaean Chamber Tombs at Phaestos, on which were found the skeletons of bodies laid out in the sleep of death. This 'Room of the Plaster Couch,' may therefore be regarded as having served as a bedroom. It was covered with a cement floor, except for one large slab in the middle of its Eastern border, with an aperture used for flushing a drain, to be referred to below.

This slab in fact was opposite the entrance jambs of a latrine, a description of which is reserved for a succeeding Section, in connexion with the drainage system of this quarter. Its South partition wall was that which had turned off the entrance passage described above. Beyond the North partition wall of this closet was another doorway, with remains of its wooden framework and red coloured stucco, giving access to a corridor leading by a double turn to the Hall of the Colonnades. The Eastern side of the room thus shows a succession of four limestone jambs and bases with reveals, originally surmounted by as many pillars supporting the upper storey. Three stone pillar bases of the upper storey answering to them in number, but not quite in relative position, were found compacted together by means of intervening pavement slabs forming a fine line of masonry, which, especially in its central part, had somewhat sagged down below its original level. This has been preserved (slightly raised, to its original level), by means of brick piers built above the lower pillar bases.

The South and West walls of the room were constructed of rubble masonry, but the North wall showed fine limestone blocks above and below. In the North-West corner was another doorway leading to a small court which served as a light area. To the right of this exit the upper limestone courses had sunk a good deal, and between them and the lower courses was a space filled with earth and rubble. This subsidence was due to the fact that the whole upper part of this North wall had been originally supported on wooden beams and pillars forming the frame-work of a large double window opening on to the Court, and thus giving sufficient light to the room. The limestone blocks above the original window opening were photographed and numbered in their relative positions and replaced at their original level above a new supporting wall, on the cement facing of which the form of the window was traced. The somewhat naive trust of the Minóan builders in the strength and durability of wooden supports at least bears witness to the massiveness of the timber employed. In the present case there was not even a flanking pillar of stone by the doorway as might naturally have been expected.

The walls of the Room of the Plaster Couch had lost their stucco covering, but the remains of a fine dado of gypsum slabs, 2 metres high and 1·20 broad, were visible round the South and West walls and above this a gap for wooden beams, which we may infer to have been originally marked by a painted frieze of spirals and rosettes like that of the adjoining Corridor and Bath Room.

The North-West door of the 'Room of the Plaster Couch' gave access as already stated to a small Court (4·50 metres North-South by 3·50 East-West) which serves as its light area. The walls of this Court, except the spaces reserved for the windows, were of fine limestone blocks with the usual gap for woodwork about 2 metres from the floor. Along the foot of the North wall was a projecting course, which seems, when coated with its original stucco covering, to have been used as a seat.

On the East Wall of this Court was a second double window like that looking out from the Room of the Plaster Couch, giving light, in this case, to an alcove and to the Corridor leading towards the Hall of the Colonnades. The dowel holes in the stones that formed the sill of this window, about 40 centimetres above the floor level, clearly showed how the wooden posts—two side posts and one in the centre—had been arranged. Considerable remains of these and the massive lintel above were indeed

found in a carbonised condition amidst the debris which had worked its way into this opening and helped to support the limestone blocks above. It was thus possible to restore the whole framework of the windows,

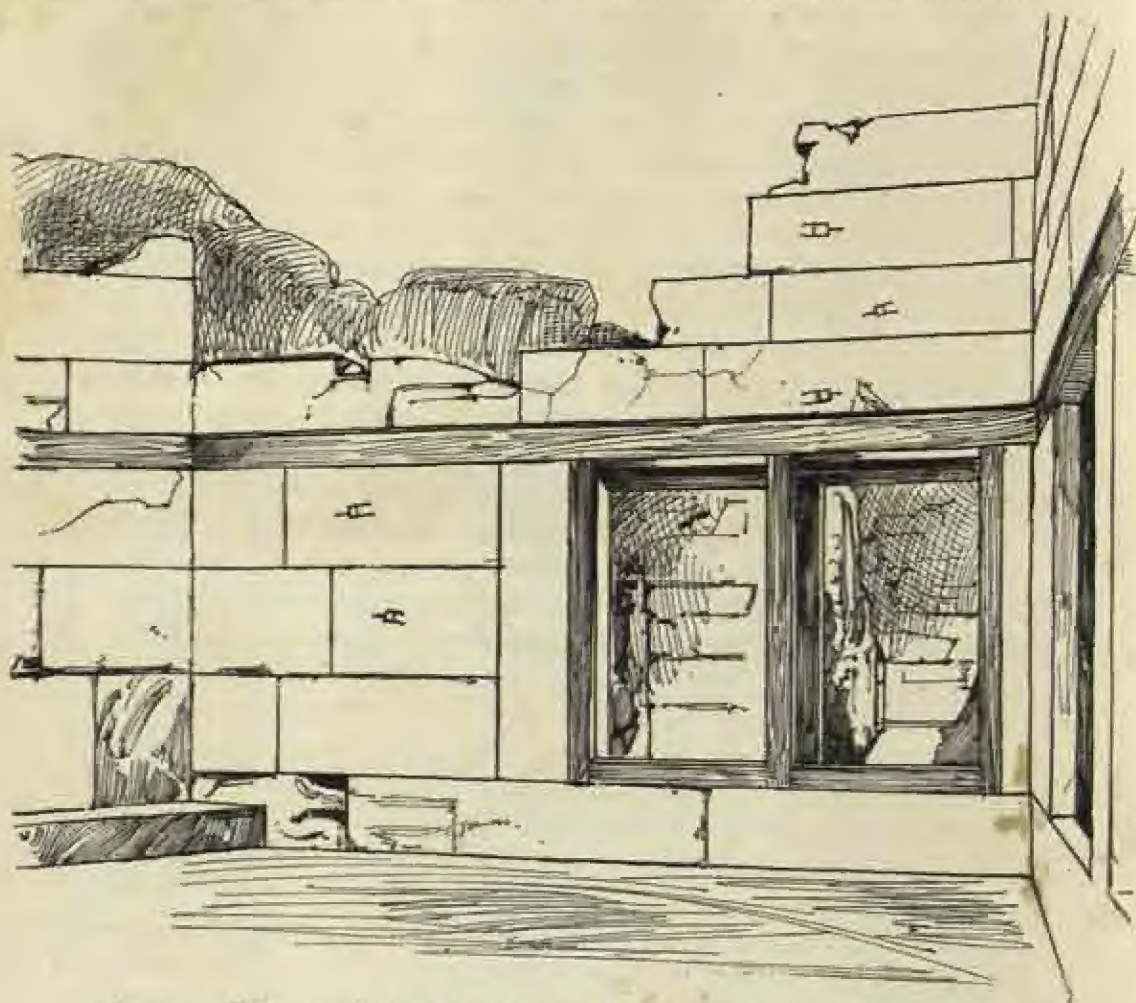


FIG. 31. — VIEW IN COURT OF THE DISTAFES, SHOWING RESTORED FRAMEWORK OF WINDOW.

the somewhat sunken limestone courses above being raised to their original position (see Fig. 31).

An interesting feature of the limestone blocks of this small Court was the repetition of a sign like a two pronged fork with two cross-lines between

the prongs—sometimes reduced to a single cross-line—(Fig. 32 *c* and *d*). But this mark has a peculiar interest from the fact that it recurs in somewhat fuller and more realistic form among the signs of the pictographic Cretan series (Fig. 32 *a, b*). It is seen in this case accompanied by a sort of pendant and in my first account of the Cretan pictographs I had been inclined to regard it as some kind of *sistrum*. That is a possible view, but it seems to me to be more natural to regard it as a simple representation of a forked distaff with the thread and pendant spindle—a type of distaff which may still be seen in the hands of the peasant women in parts of Southern Europe.

The distribution of this sign on the Palace blocks is interesting. It only occurs in connexion with this 'Domestic Quarter.' It is frequently



FIG. 32 a.



FIG. 32 b.



FIG. 32 c.



FIG. 32 d.

repeated on the South wall of the light-area of the Hall of the Colonnades above and below the double window looking into it from the back staircase of this region. It is found again in the Queen's Megaron on one of the door-jambs, the left on entering, leading to the private staircase, while the corresponding door-jamb on the right shows the Double Axe.

Can it be regarded as a sign of 'the spindle side' and a distinguishing mark of the chambers somewhat specially set apart for women? Or, if we are justified in believing that the marks on the Palace blocks have a consecrating value, can it be, like the distaff and spindle attributed to the Ilian Athênê, and perhaps the spindle whorls of pre-historic Troy, a sign of

female divinity? Its association with the Double Axe sign, the emblem of the tutelary male divinity of the Palace, points that way, but in this case too it would be specially appropriate for the Women's Quarter.

From the repetition of this sign on the walls of the small court with which we are dealing, it has seemed appropriate to name it the 'Court of the Distaffs.' There is no reason, however, for supposing that in its finished state these marks—which *ex hypothesi* were a sign of consecration for the material, like the dedications on Babylonian bricks—were visible to the eye. It seems probable that in all cases the fine limestone masonry of the small courts that serve as light areas in the Palace was brightened by a coating of painted stucco partly perhaps reproducing the lines of the stone-work, like the earlier 'Oscan' style of wall-painting at Pompeii. At Phaestos the limestone blocks of the outer Western wall showed abundant traces of the red-coloured plaster with which they had been originally adorned.

Part of a male figure in painted stucco found in this Court, and the join-cloth of another with a brilliant needlework design of flowers and network¹ that lay near the doorway of the adjoining room, as well as a bull's foot in painted *gesso duro*, seem on the other hand rather to belong to the decoration of the usual rubble walls of the interior rooms or galleries. For we should naturally suppose that the coloured ornamentation of good masonry would be architectonic rather than pictorial in character.

Somewhat above the original floor level both in the Court and in the adjoining Room of the Plaster Seat were found abundant remains of rough Mycenaean pots—many of them 'Stirrup Vases' with octopuses painted on them—belonging to the Period of Re-occupation. At a lower level were found pieces of better Palace fabric. The most remarkable ceramic find, made a little above the floor level of the Court of the Distaffs, was a fine glazed and painted fragment showing part of an inscription in three linear characters of somewhat exceptional form (Fig. 33). This inscription, painted on the vase with the rest of its decoration before the firing, recalls the inscribed vases of Classical Greece and is the only specimen hitherto known belonging to the 'Mycenaean Period.'

The doorway at the North-East corner of the Room of the Plaster Couch leads by a double turn—analogueous to that in connexion with its South-East door—to a passage of about the same dimensions as the Corridor

¹ Fyfe, 'Painted Plaster Decoration of Knossos,' *Journ. R.I.B.A.* 1902, p. 128, Fig. 69, (but placed wrong way up).

of the Painted *Pithos* on the other side, but with a cement floor in place of limestone slabs. This passage, lit by the Southern half of the window of the adjoining Court, passes on the left the opening of a rectangular alcove, the lighting of which was effected by the Northern half of the same window. This alcove was very probably reserved for attendants or guards.

Beyond this, immediately on the right, is a door giving access to what is undoubtedly the most secluded room in this quarter of the Palace, described below as the Treasure Chamber, to the contents and



FIG. 33.—PART OF PAINTED VESSEL, WITH INSCRIPTION.

character of which we shall return. Some six metres further on, the passage takes a turn at right angles to the left, and passing a kind of store cupboard—that of the ivory statuettes—and the entrance to a back staircase (see Section 18) emerges, through a door-opening, on to the inner corner of the Hall of the Colonnades. Through this Hall access would thus be gained either to the Quadruple Staircase and Central Court or by means of the lower East-West Corridor to the small rooms beyond its Eastern end, occupied in all probability by slaves or attendants. This unpaved back passage from the Room of the Plaster Couch must have been largely used as the service passage to the Domestic Quarter of the Palace.

Quantities of clay seal impressions, derived from the upper storey,

were found above the floor level of this passage from near the door of the Private Treasury onwards. Near the entrance to the Hall of the Colonnades there also came to light some curious clay labels, repeating the same linear inscription and figures and showing the impression of thick string with prominent twisted strands running through them, which had doubtless served to secure large packages or bales.

Throughout all this section the walls of the Corridor, which ascended well above the upper floor level, were in a dangerous condition, necessitating the construction of two brick arches. In addition to this, stone pillars had to be built on each side of the doorway leading to the Hall of the Colonnades, above which were laid iron bars to support the upper walling.

§ 18. THE TREASURE CHAMBER AND THE DEPOSIT OF IVORY FIGURES.

The secluded room already referred to as opening off the back passage behind the Room of the Plaster Couch was certainly the inmost nook of this part of the building, and from the difficulties that beset its approach, and a certain mystery attaching to it, it was jocosely spoken of in the course of the excavations as 'the Lair.' Its upper part was choked with debris from a chamber above it of the same square form, containing a mass of clay seal impressions, an indication that archives had been originally deposited in this upper chamber. Above these again was a stratum full of broken stirrup vases and other 'Mycenaean' pots of the usual rough class, showing that, like the neighbouring upper rooms, it had been used as a store room for these vessels in the period of Re-occupation.

The room itself contained the evidence of a gradual rising of the floor-level, the upper level, which was of stamped earth, not very clearly marked, being 35 centimetres above a lower flooring. But the most interesting and unique feature was the foundation of this lower floor. It consisted of solid limestone blocks forming a bedding over the whole room and near the West wall roofing over a main drain. This solid if somewhat rough flooring suggests the idea that it may have been a precautionary measure against any one trying to enter the room from below by means of the large stone conduit. The level of this layer of limestone blocks was about 80 centimetres below the top of the stone bases of the door jambs.

Except for the doorway itself, there was no opening into the room,

and it must have been quite dark. This circumstance explains the discovery on the lower floor level, near the South-West corner, of a pedestalled lamp of steatite of the usual Minōan class.

The possibility suggested by the seclusion of this chamber, and the solid blocks of the floor, that it was used as a repository for valuables—a kind of private treasury or wardrobe—was borne out by the finds made near the earlier floor level. Here, especially near the North-East and South-West corners, were found a variety of objects of gold, bronze, ivory, porcelain, rock crystal and other materials. The gold here found mostly consisted of quantities of thin plate or leaf, such as was applied to the surface of various materials by the Palace artificers. There was also found,



FIG. 34.—GOLD HEART-SHAPED PENDANT (3).

however, a solid heart-shaped jewel with a perforation showing that it was used as a pendant (Fig. 34). It is of the same form as a Mycenaean amethyst gem, with an intaglio representing a flying eagle and possibly linear characters below, obtained by me from the site of Knossos in 1894,¹ and a similar pendant in cornelian came to light near the Olive Press Area.

Among the other objects found in this deposit may be mentioned the following:

Bronze attachments (with gold plate adhering) and, below, carbonised wood, perhaps for a casket (see below Figs. 35-36).

Wing and leg of an ivory griffin, and head, apparently, of lion.

Fragments of ivory ornaments, including part of a bracelet covered with thin gold plate.

Parts of bull's head of 'porcelain' with gold tubes for horns and blue glass eyes.

Pieces of an ivory casket.

Porcelain plaques for inlay, a great variety, including rosettes, pieces resembling

¹ *Cretan Pictograph*, &c., p. 12 (181), Fig. 8.

oval shields; others of A shape, several with marks and numbers on their underside.

Jasper pommel of a sword or dagger.

Part of a bowl of rock-crystal (see below).

Crystal plaques for inlaying.

Remains of carbonised wood perhaps belonging to a box inlaid with porcelain plaques.

Miniature bronze axes with gold plate attaching (see below p. 101, Fig. 58).¹

Parts of diminutive bronze blades, perhaps representing swords, gold plate attaching.

Two small fragments of stucco with paintings in a miniature style; one showing part of a frieze with double axes, perhaps alternating with shields; the other a piece of a bull's head facing.

The last mentioned objects, notably the miniature Double Axes, look as if part of the treasure had been removed here from a shrine. It seems even possible, in view of the miniature temple of terra cotta, found in the Earlier Palace chamber (see above, p. 28 *seqq.*), that the miniature frieze with this sacred emblem belonged to a portable 'sacellum' with stucco decoration.

A still more important discovery threw further light on the character of the valuables originally deposited in this small 'Treasury.' Under the second flight of the back stairway (to be described below), there seems to have been a kind of closet, 1.15 metres wide, with its opening at the corner of the passage, about six metres beyond the door of the room with which we have been dealing. The front of the opening of this stair-cupboard was shut in below by a low stone breastwork, the top of which was about 85 centimetres above the floor of the passage. By the time of the Re-occupation, the lower part of the closet within this barrier had been partly choked with earth, and at about 70 centimetres from its original floor was traceable a second floor level, upon which were found several later Mycenaean amphorae and a stirrup vase with octopus decoration.

Below this later but still Mycenaean floor level was a stratum of deposit some 30 centimetres in thickness, covering the remains of vessels of the Later Palace Period, including a pedestalled vase with two vertical handles, identical, except for the absence of painted decoration, with a late Kamáres type found in the Palace of Phaestos.² Immediately below this deposit of 'Transitional Minóan' vessels there came to light the remains of a series of ivory figures together with other objects, showing

¹ One was found round the corner by the latrine.

² L. Pernier, *Scavi, &c.*, 1900-1901. *Rapports Préliminaires*, p. 107, Fig. 39.

that this had originally been one and the same deposit with that of the little Treasure Room already mentioned. There was here, for instance, part of a crystal bowl of which another piece that fitted on to it was found with

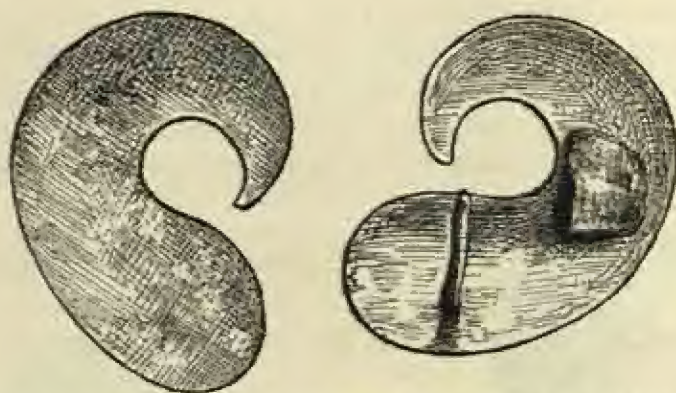


FIG. 35 a AND b.—DECORATIVE ATTACHMENT OF BRONZE, WITH GOLD PLATE ATTACHING.

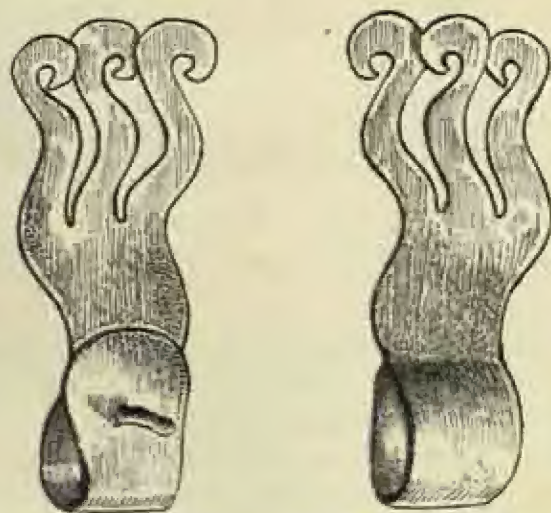


FIG. 36 a AND b.—DECORATIVE ATTACHMENT OF BRONZE, WITH GOLD PLATE ATTACHING.

the other deposit. Here also occurred part of a set of fittings, perhaps from a casket, made of bronze in some cases partly overlaid with gold plate, with curved terminations—some suggestive of a mane—and nail-like projections for attachment on their under side, of which other examples

were found in the neighbouring chamber (Figs. 35, 36). Similar pieces of porcelain inlay and an abundance of the same thin gold plate also came to light in this deposit.

Of much greater importance, however, were the ivories found, including, besides decorative pieces and an exquisitely carved wing of a bird, remains of human figures. When found these were in a very friable condition, but they were at once soaked in a solution of wax and paraffin at a high temperature, by which means a good deal of their original consistency was restored and their surface at the same time cleared of impurities.



FIG. 37.—PART OF IVORY HEAD, WITH CURLING LOCK OF BRONZE PLATED WITH GOLD (f).



FIG. 38.—HEAD OF IVORY FIGURE, SHOWING HOLES FOR ATTACHMENT OF LOCKS OF HAIR IN BRONZE AND GOLD (f).

The most remarkable of these ivories belonged to a series of figures of youths—possibly in one case of a girl—each of whom apparently is in the act of leaping with extended arms and head thrown back. Only in one case (Plates II. and III.) was enough of the trunk preserved to admit of the reconstitution of the whole figure. The waist alone—which has been supplied by wax—was here wanting. It was evidently, as in all the Palace figures, very narrow, and a strong presumption arises that it was surrounded by a metal band. The thin gold plate found with the figures further suggests that the usual loin cloth, which was certainly not wanting, was supplied by its means. On this and other examples the hair was reproduced in a curious manner by means of curling bronze wires with remains of gold

plating adhering to the bronze, several of which were found. Fig. 37 shows an example of one of these locks, somewhat corroded, still attached to a head. In Fig. 38 only the holes are shown. In this case there was evidently a row of shorter curls over the forehead. In several cases curving anklets and bracelets of the shape worn by the youths of the Procession Fresco are seen in relief round the ankles and wrists. The foot-gear consists of elegant shoes tapering to a slightly upturned point.

The figures were not cut out of solid pieces of ivory, the fore-arms being attached by means of joints and sockets in the manner illustrated by the specimen shown in Fig. 39. The height of the best preserved figure is 28.7 centimetres (about 11½ inches). From what has been said above it appears that these ivories were in a certain sense chryselephantine, and the question naturally suggests itself—was the ivory itself tinted? No trace of this is at present discernible, but the passion for colour is such an universal characteristic of Minóan Art, that it is probable that the male figures at any rate were originally stained of a ruddy hue.

The life, the freedom, the *elan* of these ivory figures is nothing short of marvellous and in some respects seems to overpass the limits of the sculptor's art. The graceful fling of the legs and arms, the backward bend of the head and body give a sense of untrammelled motion, to a certain extent attainable in painting or relief, but which it is hard to reconcile with the fixity of position inherent in statuary in the round. How were such figures supported? Not certainly by their taper feet or delicate fingers. It may be conjectured that they were in each case actually suspended from the girdle in a downward slanting position by means of fine gold wires or chains, recalling in this the *amorini* of Hellenistic jewellery and terracottas.

The naturalistic treatment of the individual parts of the body is quite in keeping with the animated appearance of the whole. The set of the arms and shoulders and the well-developed breast of the figure seen in Plates II. and III. point to careful physical training, and the slender limbs reveal great sinewy strength, though in some examples the treatment of the flesh is softer, and may, as suggested above, be due to a difference of sex. The arm represented in Fig. 39 gives a good idea of the fidelity in detail. While the development of the lower part of the biceps and of the succeeding supinator muscle are here well indicated, the extensors of the wrist and hand are shown in full action, and the veins of the back of the hand and even the finger-nails are minutely rendered.

These youthful figures are athletic—not to say acrobatic—in their nature, and certain parallels presented by the Palace wall-paintings, as well as by a series of gem impressions, seem to connect them in the most unmistakable way with the favourite sport of the Minōan arena—the bull-grappling scenes, of which the Thessalian *ταυροκαθάψια* may be regarded as a kindred survival.

It has been possible this season to reconstitute the remains of a fresco panel, exhibiting one of the scenes described, from the Chamber which apparently overlooked the Court of the Olive Spout, to which reference was made in the Report of 1901. This design reproduces a complete *tour de force* of the Palace Circus. A girl toreador in cowboy costume is caught under the arm-pits by the horns of a charging bull and is evidently in the act of being tossed. A youth, who seems already to have been



FIG. 39.—ARM OF IVORY FIGURE (I).

thrown into the air, is seen performing a somersault over the animal's back, while a girl behind, perhaps intended to be standing in the middle of the arena, holds out both hands as if to catch the flying figure. In other cases, as most frequently on gems, we see various versions of the Tirynthian picture of the youth springing from above and seizing the bull's horns in cowboy fashion. It is probable that the ivory figures belong to one or other of these representations. The way in which, in two examples at least, the head and upper part of the body is thrown back closely recalls the acrobatic figure of the painted panel described, but the legs there are also both bent back, as in the execution of a backward somersault, whereas, in the case of the ivory, one is extended. It is to be noted that the flesh and muscles of the neck as shown in the separate head on Plates II. and III. indicate a downward position, and the youth reproduced on the same Plates must also be regarded as in the act of leaping down.

§ 19.—BACK ROOMS OF DOMESTIC QUARTER: UPPER-FLOOR. (THE WOODEN STAIRCASE AND ROOMS OF THE ARCHIVES AND OF THE STONE BENCH.)

The back Corridor mentioned above as leading from the Room of the Plaster Couch to the Hall of the Colonnades passes on the left, immediately before reaching the latter destination, the shell of what was beyond all doubt another staircase. This is enclosed in an oblong space, with a dividing wall between the two flights, leaving at its West end a space for the first landing. The gradual rise of the stairs is further marked by lower and higher cross walls built for their support and by landing blocks answering to those found elsewhere. The stairs themselves were in this case wanting and there is every reason for supposing that they were made of wood.

This wooden staircase was lit, so far as its first two flights are concerned, by the double window already mentioned as opening in the upper part of the South wall of the Hall of the Colonnades. Below the second flight of stairs was the closet that contained the precious deposit of ivories. At the top of this second flight to the left is another square landing block, and there can be little doubt that two more flights originally led up from this point to third storey rooms above. The landing to which this second flight of stairs immediately led gave access though a doorway—of which the two jambs remain *in situ*—to the room which originally existed immediately above the lower covered part of the Hall of the Colonnades. Like the room formerly existing above the Hall of the Double Axes, this too is thus linked on to the upper floor system of the 'Domestic Quarter.'

Several interesting fragments of decorative fresco, including part of a triglyph frieze, had found their way into the Northern division of the staircase, partly perhaps through the window opening on the adjoining Hall of the Colonnades, and it is probable that they had originally formed part of its ornamentation. A curious slab of porphyry-like limestone, of grotesque outline, perhaps part of a seat, was also found here.

Throughout this staircase area—for the most part above the level of the first landing—were found quantities of seal impressions, generally somewhat broken. By this time however the eyes of the workmen specially trained for this task had become so quick that very few fragments escaped their first examination of the earth and remained for subsequent detection.

by means of the sieve. This deposit of seal impressions was continuous with that of the adjoining corridor and extended thence to the upper strata of the neighbouring Treasure Chamber. In that case they had certainly fallen through with the collapse of the floor from the similarly shaped room answering to it above. On the other hand further seal impressions, together with some inscribed tablets referring to granaries, were found beyond the East wall of the same upper room and above the level of the balustrade of the adjoining Bath Chamber. It thus appears fairly certain that the centre whence these sealings were originally derived must be sought in this chamber which, like the Treasure Chamber below, was of the nature of a store-room, without any access or opening except a single door. At the time of the Re-occupation this, like other upper chambers near, had been used as a store-room for Stirrup Vases and amphorae of the usual 'mature' Mycenaean type, and it was probably owing to this that large numbers of seals or other earlier documents that had accumulated here were thrown out and found their way into the staircase and other adjacent nooks.

We may therefore regard this very extensive deposit of seal impressions—the most considerable yet found in the building—as having been derived from the room in question, which was evidently set apart for some kind of archives. None of these seals were countermarked like some of those found elsewhere in connexion with remains of chests containing deposits of inscribed clay tablets. On the other hand the broken condition of a large number seems to show that they were attached to documents, in many cases perhaps correspondence, inscribed on some perishable materials, such as the palm leaves, which, according to the Cretan tradition, served as the earliest material for writing.

The interesting discovery described in a succeeding Section (25) of clay cups containing for the first time ink-written inscriptions throws a new light on the character of these vanished writings.

The clay impressions include a great variety of subjects, many of which are repeated from the same seal.

Among the classes of subject represented may be mentioned the following:

Male Divinity between lions.

Seated Goddess, with lion in front on rock.

Lion-headed and other 'Daemons,' in some cases holding pointed vessel.

Parts of cult scenes and of a shrine with sacral horns.

Group of four double axes, symmetrically arranged (see Fig. 61, p. 103.)

Griffins.

Composite monsters, man-goats, &c.

Group of three warriors with 8-shaped shields, spears and peaked helmets (see Fig. 41).

Group of three shields of similar form.

Forearm and hand holding lily spray (see Fig. 42).

Lion and fluted pillar.

Boy milking cow.

Scenes of the *Taurokathaptia* (see Fig. 43).

Animals: sometimes in groups; a great variety.

Flying fish.

A 'school' of dolphins.

Grains of corn.

The small fragment of a seal impression given in Fig. 40 is of special interest, as it seems to contain part of the impression of a cylinder showing late Babylonian influence.



FIG. 40.—(f.)



FIG. 41.—(f.)

The consideration of the religious scenes and figures—notably the *Dæmons*—represented on these sealings must be reserved for another occasion. The groups of warriors, such as that shown in Fig. 41, give the best idea as yet obtainable of the military side of Knossian life—which in the Palace at least is by no means in the foreground. The pointed helmet, composed of various bands, recalls a small ivory helmet found on the West side of the Palace, but in this case no cheek-piece is visible; otherwise it recalls the head-gear of a warrior on the silver vase-fragment from Mycenæ. The hand and forearm grasping a lily spray seen in

Fig. 42 has a curiously modern aspect. A bracelet is seen round the wrist. The male figure (Fig. 43) performing a backward somersault over the back of a galloping bull may throw a side-light on the ivories.

The staircase wall by the adjoining upper corridor had evidently, from the character of its material, been partly reconstructed at a late period in the history of building. Here, together with the usual rubble, were a number of worked blocks—some exhibiting sawn sections, consisting of Spartan basalt or *lapis Lacedaemonius*, a rock apparently unknown in Crete, which had been imported from Mount Taygetos for decorative purposes. This material seems indeed to have been a favourite one of the Minōan gem engravers.

The upper Corridor in question had originally followed the line of the passage below from the *thalamos*, already mentioned as built over the East



FIG. 42.—(3.)



FIG. 43.—(1.)

half of the Hall of the Colonnades, past the stairs and the Room of the Archives. On passing the head of the wooden staircase, we found on this upper passage a second doorway, the stone jambs of which are preserved. At this point the passage turns, like that below, leaving on the left the door of the Room of the Archives and thus approaches a chamber of which there are considerable remains, situated above that with the plaster couch, and which, from its most conspicuous feature, is here called the Room of the Stone Bench. On the lower floor the course of the corresponding passage is broken by the latrine, here however it is continuous, passing the door of the Room of the Stone Bench and a double light opening from it marked by limestone pillar bases. In this way, through another doorway, both the jambs and stone threshold of which are well preserved (see Fig. 44), it reaches the Upper Corridor corresponding to the

lower section that contained the painted *pithos*, and finally emerges on the system of rooms above the Queen's Megaron.

On the East wall of this Upper Corridor, flanking the room of the Stone Bench, a good deal of the original red stucco coating was still visible. The Room of the Stone Bench doubtless derived its light from a double window looking on to the Court of the Distaffs and answering to that already described on the lower floor. Considerable remains of the slabs of the upper floor were here preserved, especially near the West wall, and here the stone bench from which the room has been named still stood at its original level (see Fig. 44). It has two pilasters on its front and resembles the benches of the Room of the Column Bases and of the Throne Room. It has been possible in part to reconstitute the subsided area of the pavement (Fig. 44).

It is noticeable that, since there was no occasion to reserve so much space on the Eastern side of this room as was below occupied by the door of

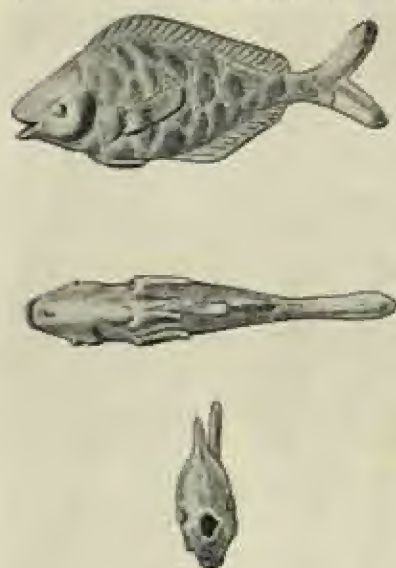


FIG. 45.—GOLD FISH (†).

any intelligible meaning to the small chamber which stands in such direct relation with the descending drain shaft, unless we suppose that it had an outlet into it for the passage of ordure or other waste materials. The closet seems in fact to have served as another small latrine.

the latrine, the single doorway communicating with the Upper Corridor is wider than that below, and the pillar bases thus do not correspond in position with those of the ground floor. The absence of the latrine on this side seems to have been made up for by a similar convenience in the S.W. corner of the room. There is an ascending step and doorway leading to a quite small closet from which a square stone shaft (A on plan, p. 82) descends to a drain passage below the level of the lower floor. There are strong reasons for believing that this shaft was originally continued to the level of the Central Court and received its surface waters on this side.

It would be difficult however to assign

On the South of the Room of the Stone Bench is a bay communicating by a doorway, both jambs of which are preserved *in situ*, with a small square alcove beyond. Beneath the floor of this annexe is a small square chamber, in the bottom of which opens another drain-shaft. This chamber could only have been approached by some kind of trap door in the floor above, marked in Fig. 44 by the break in the re-constituted pavement.

Finally, outside the double doorway of the annexe to the Room of the Stone Bench to the South, is another stone shaft going down to the drain below. Its mouth, which lay partly between the jambs of the Northernmost of the two doorways of the above room, was covered by a stone slab. Partly in the lower part of this shaft, which descends 5·3 metres, and partly in the neighbouring part of the cloaca below, were found the bone 'fish' for inlaying, with incised signs, many of them resembling the letters of the later Greek alphabet.¹

Near the small upper latrine was found a gold-fish of very naturalistic execution, of which an enlarged representation is seen in Fig. 45. It is possible that this may have been taken from the Treasure Chamber.

§ 20.—DRAINAGE SYSTEM AND SANITARY ARRANGEMENTS OF THE DOMESTIC QUARTER.

In the whole structure of the Palace, nothing is more remarkable than the elaborate drainage system that runs throughout the 'Domestic Quarter,' and adjoining halls. The stone shafts, already mentioned as descending from the upper floors, lead down to a well-built stone conduit with flat covering slabs. Throughout the greater part of its course it is about a metre in height and half that width, so that a man can easily make his way along it. The inner surface of the conduit was originally coated with cement. A plan of the shafts and neighbouring drains is shown in Fig. 46, and a section drawn through shafts A and B appears in Fig. 47.

Two short branches of this system permeate the back rooms of the Domestic Quarter, one of which starts from immediately below the shaft marked A in the plan (Fig. 46), while the other leads from a section of wall between the Quadruple Staircase and the Hall of the Colonnades. Shaft A, as noticed in the preceding Section, was certainly constructed to receive the

¹ See *Report*, 1901, end.

surface waters of the adjacent area of the Central Court, and it is probable that a shaft or pipe ran up the wall at the starting point of the other branch of the lower conduit, which by its means received the collected

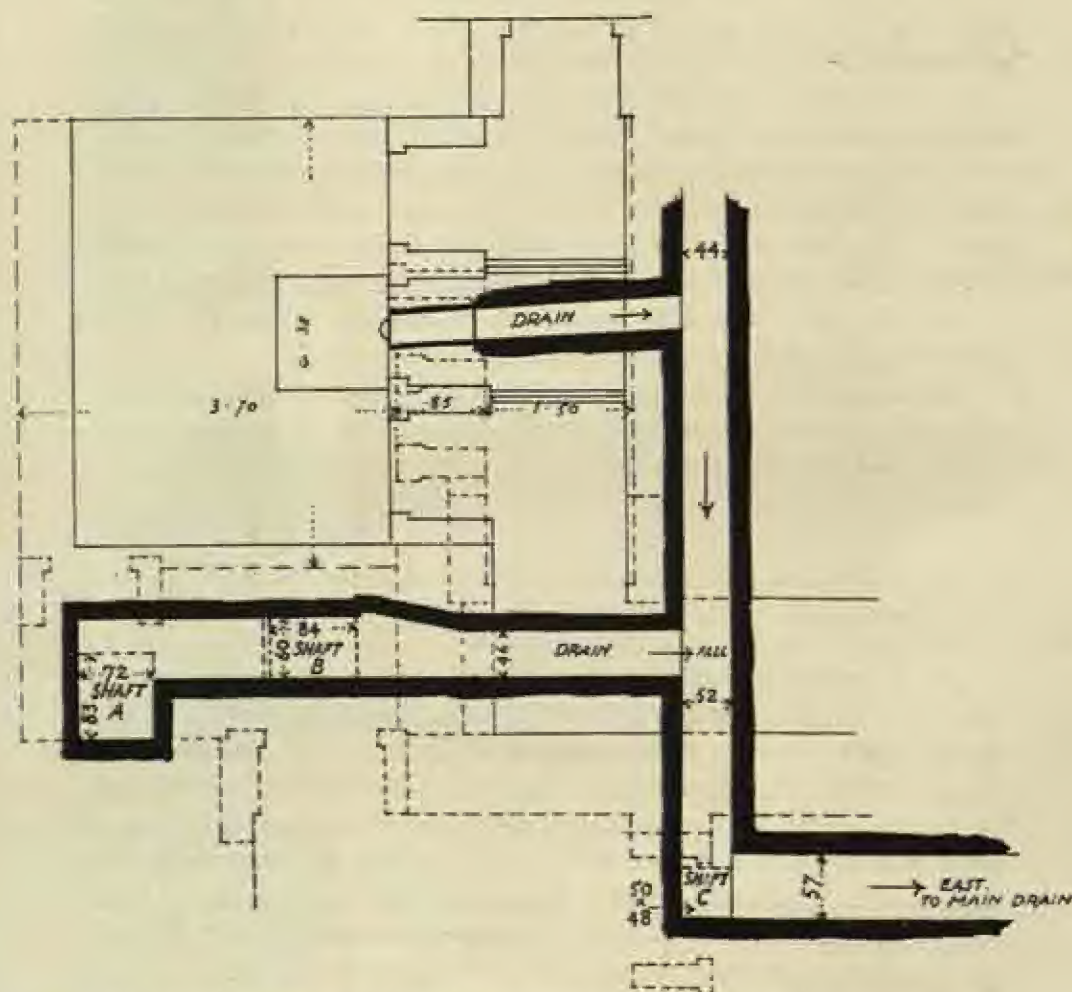


FIG. 46.—PLAN OF PART OF THE DRAINS, SHOWING POSITION OF SHAFTS A, B AND C.

drainage of the roofs of the neighbouring halls and staircase. Both branches show a continuous gradual descent with an occasional step down.

At the point where C, the Easternmost of three shafts shown in the plan,—which may also have served at times as a man hole,—strikes the

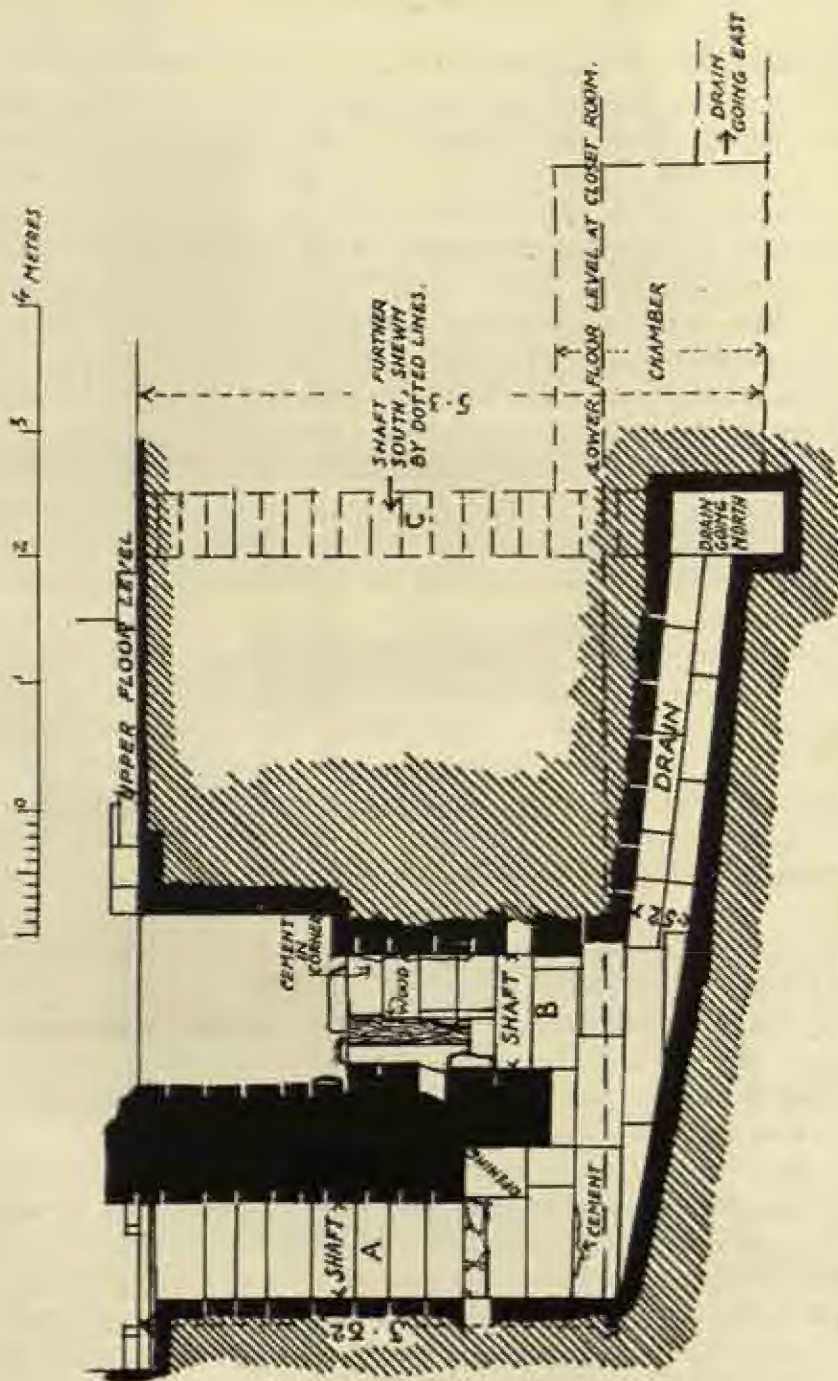


FIG. 47.—SECTION OF DRAIN WITH SHAFTS A AND B.

united course of the two short branches already mentioned, the stone conduit turns at right angles and continues in an Easterly direction, skirting the Southern borders of the Queen's Megaron, and the adjoining portico of the Hall of the Double Axes. Here it is joined by a tributary drain, the ultimate source of which was apparently the Court of the Distaffs, and which received in succession the drainage of the light wells of the Hall of the Colonnades and of the Double Axes. With each successive drainage area its capacity increases, and from the light well of the Hall of the Double Axes onwards, the passage is large enough for a man to crawl along it.

At a point about seven metres East of the S.E. pillar of the Portico of the Hall of the Double Axes another tributary stone drain runs into the main conduit from the North. In this Northern branch a quantity of painted pottery, of the finest Later Palace style, was found at the very beginning of the excavations in 1900.

Beyond this point the slope rapidly descends, and the further course of the main conduit is broken off.

In considering the elaborate drainage system of this quarter of the Palace, it is well to remember that its primary object was to afford a means of escape for the surface waters. The rains of Crete are often even now torrential, and in the Minōan Period, when the country no doubt was much better wooded, the rainfall must have been greatly in excess of what it is at the present time. The main conduit below the ground floor level of this Palace region answers both in structure and capacity to the large stone drain that runs down from the Northern Entrance Passage and which, beyond all possibility of doubt, was principally devised to effect a passage for the surface waters of that end of the Central Court. In the same way 'Shaft A' of the Eastern system received those that accumulated on this part of its area. So too the Northern of the two branches on this side seems, as we have seen, to have acted as a channel for the water collected from the roofs of the great adjoining halls.

The main conduits below were thus periodically flushed at times with a great force of water, and facilities were in this way afforded for the removal of ordure and waste materials. Of these facilities the Minōan architect skilfully availed himself by bringing into connexion with this system of surface water drainage various conveniences of a sanitary nature, some of which in their elaborate character can hardly find a parallel in the Ancient World.

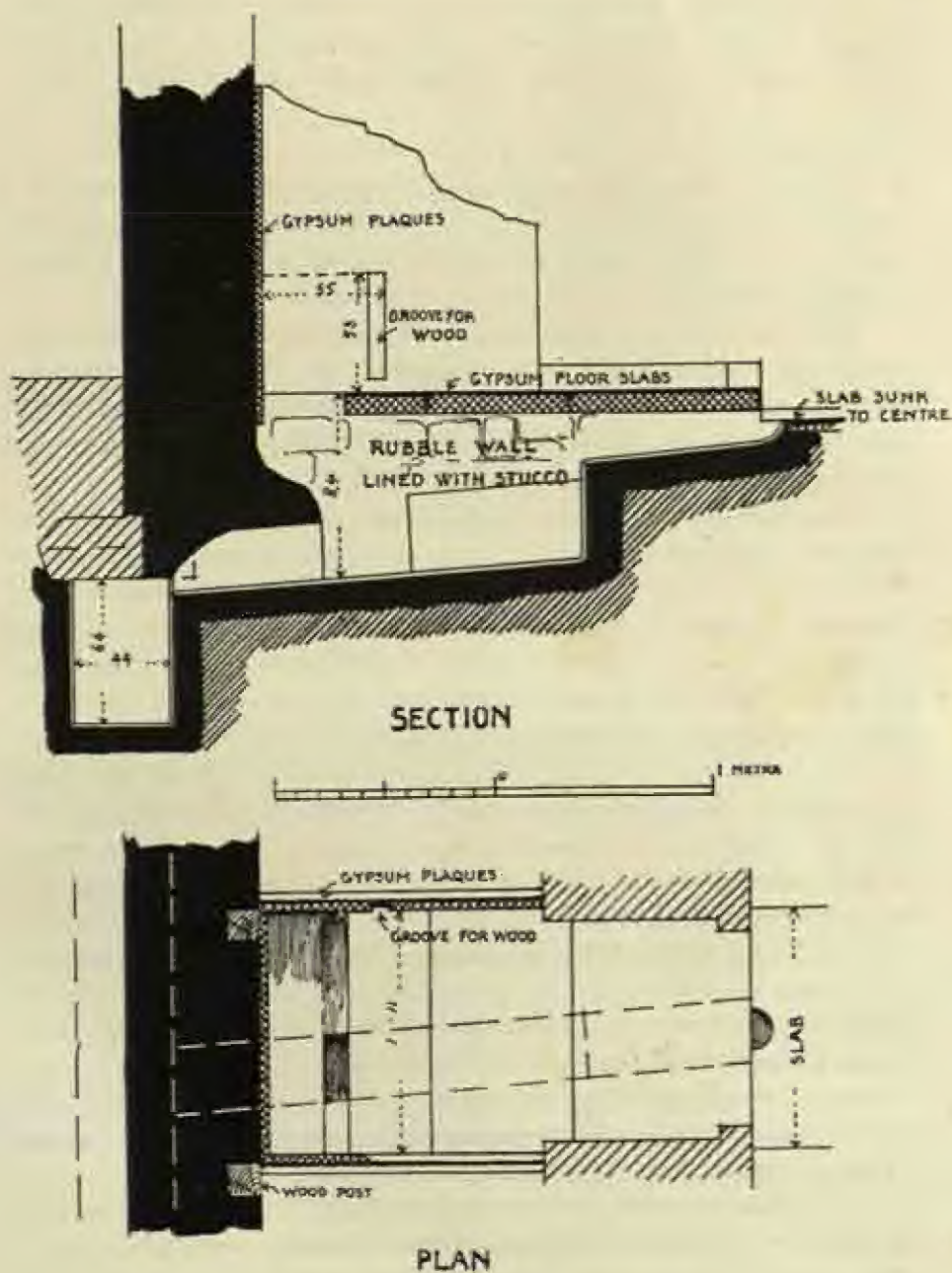


FIG. 48.—PLAN AND SECTION OF LATRINE.

It has already been noticed that shaft A passes on the second floor through a small detached chamber, which may partly be supposed to have served the purpose of a latrine. As to the usage to which shafts B and C were put, the evidence is not so clear; it may however be assumed that they served the purpose of modern sinks, perhaps in one or the other case in connexion with culinary preparation. The convenience of either as a man-hole giving access to the main conduit below is also obvious, the descent to it by this means, as I know by personal experience, being by no means difficult.

But the most elaborate structure in connexion with the drainage system is unquestionably to be found in the small closet, with its partition walls on either side consisting of double slabs of gypsum, that opens off the Room of the Plaster Couch. There can be no doubt that this small chamber served as a latrine.

The interior arrangement of this closet will best be gathered from the plan and section (Fig. 48). From the groove indicated in the wall-slab there seems to have been a wooden seat at the back of the compartment, apparently with a stone foot-rest in front of it like that on which the throne stands. The height of the seat moreover, allowing for its upper slab, would have been about 57 centimetres from the ground or, within a centimetre, the same as the throne.

Up to a little beyond the outer line of this seat, the latrine is paved with gypsum slabs, but beyond this limit the stone pavement ceases and this space seems to have been in part at least open, thus giving access to a drain passage below. This drain passage on the one side communicates by a small opening with the North branch of the main drain, on the other by a sloping channel with a hole in the pavement slab outside the closet door, which seems to have been made use of as a means of flushing this channel. It is to be observed that the entrance to the main drain is not below the middle of the seat, but on one side of it. It looks as if this asymmetrical arrangement was devised to leave a space on the other side of the bench upon which to rest a water vessel for flushing the main opening of what must certainly have been a latrine.

The curious curved projection coated with cement which juts forth from the wall immediately below this main opening is very enigmatic. It may almost be suspected that there was here a balance flap.

In any case it may be taken as certain that both the apertures were

closed externally by slabs, like the drain-shaft C when discovered, to prevent the effluvia of the drains from penetrating into the adjoining rooms. In this connexion it may be observed that the high shafts such as those originally leading to the level of the Central Court and of the roof would have afforded excellent ventilation for the main drains, promoting as they must have done a constant circulation of air below. These main conduits were continually flushed during a great part of the year, and it must be remembered that, as in the case of the filling and emptying of the large bath basins, slave labour was probably available for clearing out the impurities from the passages during the dry season. The shafts, as already noted, formed excellent man-holes and the main drains are so roomy that two of my Cretan workmen spent days within them clearing out the accumulated earth and rubble without physical inconvenience.

§ 21.—THE PLASTER VASE CLOSETS.

Immediately South of the rooms of the Domestic Quarter with the descending shafts is an interesting group of small rooms with adjoining store-closets. The ground floor of these, as in the case of all this Southern zone, is on the higher level corresponding with that of that Olive Press and connected system on the North, and of the neighbouring upper rooms of the Domestic Quarter.

On the North border of this group of rooms are six steps of a narrow stone staircase¹ which must originally have led to the level of the Central Court. The upper course of this staircase ran above the end of an inner paved chamber with part of a stone bench remaining against its North Wall, and to which there is at present no visible access. On the floor of this room and in two adjacent chests or closets were found a series of vases belonging to the earliest period of the existing Palace, and tending to show that not long after its construction the chamber had been filled in or its access blocked.

A narrow passage, 60 centimetres in width, flanking the staircase, gave access to another smaller paved room which, from its square form and the remains of gypsum lining slabs attached to its walls, somewhat resembled one of the Palace bath basins. On the West side of its entrance was a small niche.

¹ The steps are 72 cm. wide, their riser 12, and tread 27.

The inner chamber was flanked on two sides by closets of a remarkable character. The exterior walls of these are thin partitions, composed of hard red stucco,¹ with a kind of terracotta plaster core—the whole only 12 centimetres, or about $4\frac{1}{2}$ inches, thick. The more roomy of the two



FIG. 49.—FALSE-LIPPED JAR USED AS COVERING OF AN INTERMENT, WITH SKULL.
(Height, 58.3 cm. ; diam. 47.75.)

closets contained three large jars with a plain brown surface with white bands,² two of them characterised by a false spout on the rim—a special feature of the later Minōan pottery. An interesting discovery made on the opposite side of the valley shows that jars of this type were occasionally

¹ .06 in thickness.

² The taller of these is 1.10 metres high.

used for sepulchral purposes. The accidental circumstance of a cow putting its foot through its bottom, revealed the existence there at a spot North-East of the Palace, of a jar of precisely similar form (Fig. 49) which had been placed upside down in a round hole just sufficient for the purpose, above the remains of a child and a few smaller pots of a plain character. This as yet isolated discovery¹ is the only interment of the Palace Period that has as yet come to light on the site of Knossos.

Near these *pithoi* was an elegant one-handed vase (Fig. 50, middle),



FIG. 50.—VASES FROM PLASTER CLOSET OF EARLIEST PERIOD OF LATER PALACE.

with white bands and traces of flowers and foliage on a purplish brown ground, 43 centimetres in height, while at various points on the pavement of the room itself were scattered other small vases, some of characteristic early form.² With them was also a steatite 'pyxis' and a triton shell.

The contents of the other plaster chest were still more remarkable.

¹ Careful researches in the neighbourhood of this tomb did not result in the discovery of any further interments.

² E.g. a plain vase, shaped like those represented in Figs. 13 a and 13 b above—the commonest

³ *Kamāres* form.

It contained, besides the remains of a jar, resembling the above mentioned, with a 'false' spout on the rim, a whole collection of pots belonging to the same period, most of them well preserved, and a white marble bowl with four ear-like handles. Two of these vessels, a tall jar with four handles round its rim, and a kind of candlestick, to be described below (Fig. 51, 2, and Fig. 52), were in colour and ornament indistinguishable from the Late Minóan class of painted ware found in the basement room described above, together with the remains of the Terracotta Sanctuary. Their decoration consisted of white continuous spirals on a dark brown ground. It will be seen from this that the earliest ceramic fabrics of the Later Palace fit on without a break to those of the earlier building to which apparently the room containing the Terracotta Sanctuary belonged, and it will be remembered that the early pottery found in the 'Kaselles' shows the same affinities.

In the present deposit, however, as in the Kaselles, elements of transition are found which are not visible in the earlier Palace. In addition to the vases with the white spirals on a dark ground there came to light¹ a small bowl with a red continuous spiral on a buff ground (Fig. 51, 3) which, except that the surface of the vase was dull, recalled 'proto-Mycenaean' types.

The plaster chest also contained a number of cups preserving to a certain extent the outline of those belonging to earlier strata, though of rougher and heavier construction, with plain clay walls occasionally streaked or lined with black or blue showing a slight glaze.² Among other forms represented were tripods (Fig. 50) approaching those of the North-East Magazines, the wide mouthed jar (Fig. 51, 8), a jug with a single handle and elevated spout (Fig. 50),³ an elegant vase with a quatrefoil outline (Fig. 51, 5), and a whole series of tall two-handled jars piled in nests, which, so far as form is concerned, also recalled a common type of the North-East Magazines.

These latter jars, as well as the quatrefoil vessel, presented a decorative feature already referred to as exhibited by the painted vase found in the other plaster closet. Upon the sides of these vessels, in the case of the

¹ This lay just outside the chest, but may originally have been contained within it.

² That shown in Fig. 51 is 7.3 cm. in height and 8.8 in diameter. Its ground colour is a warm buff with a dull surface, with black, slightly glazed streaks.

³ 23 cm. in height.



FIG. 54.—VASES FROM PLASTER CLOSET OF EARLIEST PERIOD OF LATER PALACE.

quatrefoil vase upon a purplish red ground, in that of the jars (see Fig. 51, 7, 10)¹ upon the terracotta surface of the pots themselves, sprays and groups of lilies, showing both the flowers and foliage, are painted in white in a most naturalistic fashion. These picturesque and beautiful floral designs, so freely drawn, represent the complete emancipation of the ceramic artists from the more geometric traditions of the earlier Minóan art, and become henceforth a distinctive feature of the Later Palace style. It is only in its latest phase that they show a tendency to be absorbed in a decorative conventionalism, intensified no doubt by increasing intimacy with Egyptian models.

The lily itself was the favourite Palace flower. On a fine fragment of wall-painting, found at the close of the present season's work near the



FIG. 52.—PAINTED EARTHENWARE CANDLESTICK FROM PLASTER CLOSET.

South-East staircase, we have a glimpse of a whole field of lilies with white flowers and buds, yellow pistils and stamens and green foliage on a red ground, while, lest any natural touch should be wanting, the petals are in some cases shown half blown off by the wind. From the lily spray in the hair of the seated Goddess on the great signet ring from Mycenae, it seems probable that the flower had a religious association. In its more conventionalised form as a fleur-de-lis, we see it supplying the decoration of the crown and collar of the painted bas-reliefs and as a foot ornament of the youth of the Procession Fresco, who is in immediate attendance on 'the Queen.'

Among the forms of vessel found in the plaster chest, that referred to

¹ Fig. 51, 7, is 33 cm. high and has a reddish brown ground. Fig. 51, 10, is 25.5 high with similar ground.

above as a 'candlestick' is specially noteworthy. Its under side with the white spiral decoration is shown in Fig. 51; and the upper side with a socket, much resembling that of a modern candlestick, is seen in Fig. 52. Both the size of the object and the fragile character of the material show that it was not a torch holder and there can be no reasonable doubt that this, like certain analogous forms of classical antiquity,¹ was intended to



FIG. 53.—EGYPTIAN CLAY CANDLESTICK FROM FOURTH DYNASTY TOMB.

hold some kind of wax candle. But the characteristic form and the expanding socket take us back to a much earlier parallel,² and the most literal prototype of this clay utensil, like those of so many of the Minóan stone vessels, is supplied by the old Empire of Egypt. Fig. 53 shows a sketch of a similar clay candlestick from a Fourth Dynasty tomb. Attention will be called, in a succeeding section, to the accumulating indications of a direct contact between Minóan Crete and early Dynastic Egypt.

§ 22.—COURT OF THE SANCTUARY; SHRINE OF THE DOUBLE AXES, AND LABYRINTH FRESCO.

Both the rooms with the plaster closets and the whole upper system of the Domestic Quarter seem to have been approached on the South-East from an open Court of elongated form. The West side of this Court is flanked by a self-contained quadrangular block of small chambers through the centre of which runs a double gangway leading at its inner extremity into a corridor that runs round the Western and Northern sides of the block

¹ For examples of these, see M. Saglio's article 'Candelabra,' *Dictionnaire des Antiquités*.

² A somewhat analogous form of clay utensil, but with a larger socket, is found in Cypriote Tombs of the sixth century B.C. Others were found at Lachish.

in question. The two parallel gangways that traverse the centre of this group of structures open on to the Court by a double doorway, immediately in front of which are the remains of a stone altar-base of the kind found elsewhere in the Palace. From the significant position of this altar-base and from the religious character of one at least of the chambers that stand in immediate relation to it, the elongated area in which it is situated has been here named the 'Court of the Sanctuary.'

The passages bounding the rectangular block of buildings to the North and West were both productive of interesting finds. In the lateral passage to the North were brought to light, above the floor level, a large number of perforated clay loom weights, more globular in form than those of the deposit from the earlier Palace rooms described above (p. 24), together with spools of the same material for winding thread. These had fallen from an upper storey room where the loom (*ἐργαστήριον*, as it was called by our workmen) must have been situate. We have here an indication of women's chambers.

In the back passage to the West—also above the floor level—were found a series of inscribed clay tablets, some of them well preserved, including two almost complete documents containing lists of men. Clay seals were also found with them, one, which had evidently secured the chest

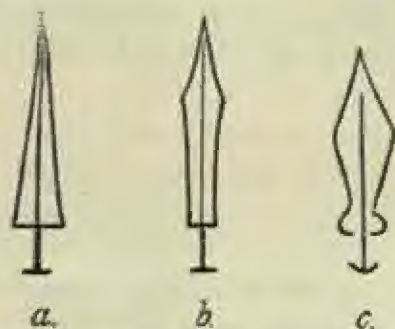


FIG. 54.—TYPES OF SWORDS INCISED ON TABLETS.

containing these personal records, countermarked with the 'Man'-sign. Altogether new was a class of tablets—two with complete and others with fragmentary inscriptions—referring to swords. The pictorial figures of the weapons on these tablets are of special importance as they illustrate two distinct forms of blade, one the old Cretan and Aegean type, triangular in form, Fig. 54, *a*, the other leaf-shaped, Fig. 54, *c*, besides a more or less intermediate class, Fig. 54, *b*.

The presence of the leaf-shaped form in the Palace is of great interest, as there can be little doubt that it is of Northern origin. It is not too much to say that the whole chronology of the European Bronze Age is affected by this discovery, which shows that this leaf-shaped type of sword had

been developed before the approximate date of 1400 B.C. These tablets were probably derived from deposits originally existing in rooms of the upper terrace level, South of the Central Court, along the borders of which runs the passage in the upper strata of which they were found. On or near the paved floor-level of this passage occurred glazed pottery of the proto-Mycenaean ('Transitional Minóan') class. One is a high-spouted vase with spiral decoration recalling that of a 'funnel' vase with perforated bottom from the Second Shaft-Grave at Mycenae.

The double gangway opposite the altar-base communicates on the South with the small bath-chamber already brought to light in the course of an isolated excavation in 1901.¹ Five steps, flanked by a parapet ending in a pillar-base, descend to a square basin (2.20 x 2 metres). As noted in my previous Report this shallow basin must have been used in the Oriental fashion for washing the feet and it looks as if in this case it had performed a lustral function of a religious kind.

An opening in the central dividing wall of the double gangway immediately opposite the entrance to the bath gives access to its Northern passage, in which, a few metres further on, appear the stone jambs of a doorway leading to a small square chamber.

The passage off which this small chamber lay was paved with limestone slabs and opened, by a doorway with two gypsum jambs, into the 'Corridor of the Sword Tablets.' In both these passages the floor had risen 25-30 centimetres, so as partly to obscure the jambs of the doorway, and the same rise in the floor level was visible in the adjoining chamber. As pottery of good Palace Period lay on the original level, it seems probable that the higher floor level here represents that of the latest period during which this part of the Palace was occupied. This conclusion was fully borne out by the character of the ceramic types found in the adjoining room.

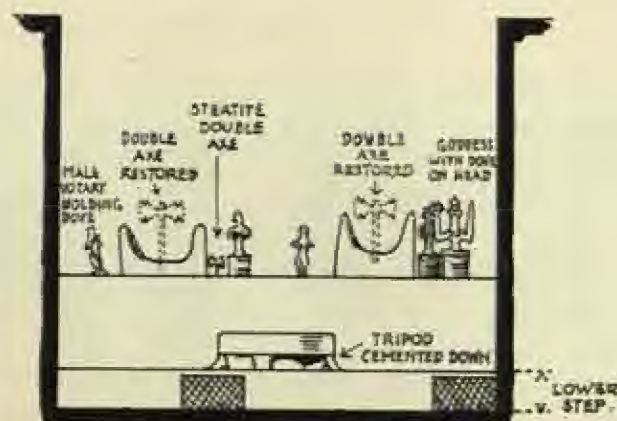
The small square chamber proved to be an actual Palace Shrine with the vessels of offering, votive figures, idols, and cult objects still in position as they were left when the site was finally deserted. The room itself was of very small dimensions—a circumstance quite in keeping with other indications as to the size of shrines of Mycenaean date. It was only one and a half metres square.

¹ See *Report 1901*, pp. 62, 63. The plan, Fig. 19, on p. 62 requires correction, the Northern passage of the double gangway not being blocked as there indicated.

The little Shrine was divided into three parts (see Plan, Fig. 55). The body of the room, with a plain stamped clay floor, was occupied by a variety of vessels standing in the position in which they had been left by the last occupants. Two of these, a tall plain jar with an oval mouth and a tripod pot, were practically indistinguishable from the ordinary rustic vessels of the good Palace Period. A stirrup-vase, however, with a good glaze and a painted design consisting of octopuses with conventionalised tentacles forming a kind of waved maeander presented a characteristic type of the later Period of partial occupation. A kind of bowl with a flat bottom and two upright handles, showing painted decoration in the shape of plain brown bands on an ochreous ground also belonged to the later ceramic class.

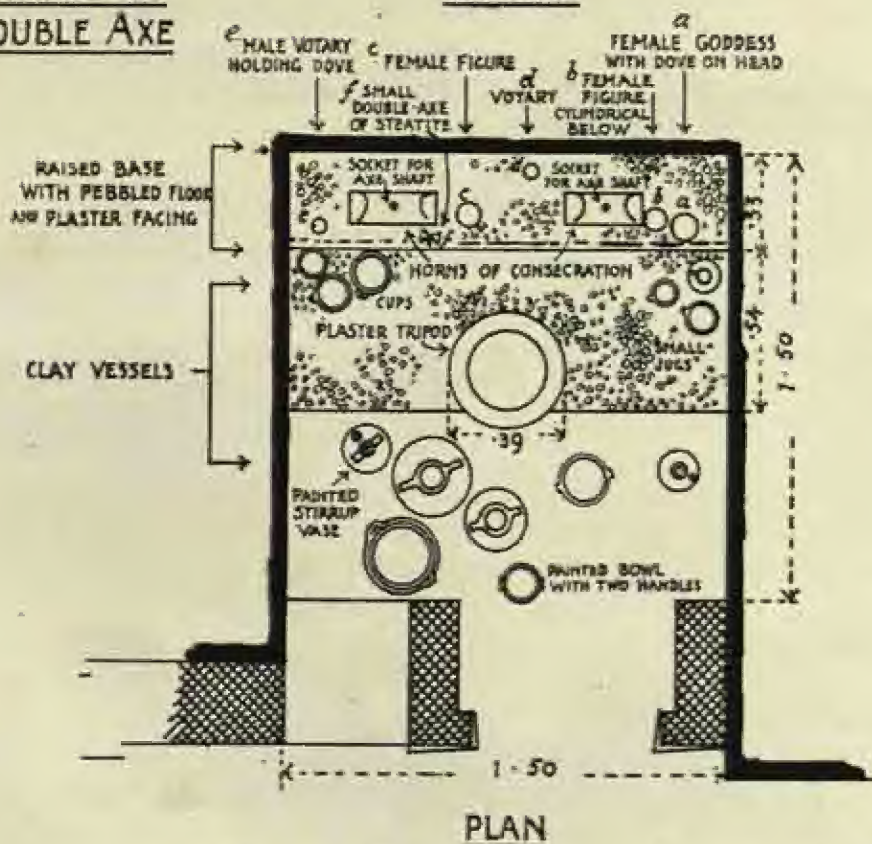
Beyond this area, where stood the larger vessels of offering, was a somewhat raised dais with a pebble floor, fixed in the centre of which was a plaster tripod with a slightly hollowed upper surface which had evidently served as a table of offerings (see Section, Fig. 55). In form and construction it recalled a similar object, which however was flat at top and seems to have been rather a stand than a table, found, with vases belonging to the good Palace Period, in a small store-room near the North-East Magazines. It was observable that the feet of the plaster tripod in the Shrine were embedded somewhat deeply in the slightly raised dais, and this circumstance tends to show that it had been already in position before the floor level rose to its present height. On the pebble dais on either side of the tripod were some cups and smaller jugs.

Immediately behind the dais and table of offerings a raised base about 60 cm. high ran from wall to wall. It was of clay and rubble construction with a plaster face much decayed, which it has been necessary to restore in order to keep the upper part from ruin. On the ledge thus formed were fixed two sacral horns of white coloured stucco with a clay core, and on either side of these stood a series of painted terracotta figures representing votaries and divinities (see plan, Fig. 55, and Fig. 56, *a, b, c*). The figures, though belonging to the mature Mycenaean period, showed, alike in their pose, the character of parts of their ornament, and their rude appearance, an old religious tradition. This was especially noteworthy in the case of a female votary, whose eyes, mouth, hair, and ornaments were rendered by means of punctures and triangular incisions filled with a white inlay, consisting of pounded gypsum, like the rude clay images from the



SHRINE OF DOUBLE AXE

SECTION



PLAN

Centimeters 100 50 10 1 meter

FIG. 35.—PLAN AND SECTION OF SHRINE OF THE DOUBLE AXE.

Neolithic stratum beneath the earliest Palace. Her arms, moreover, were clasped over the breast in the primitive fashion, while her half sitting posture also suggested a distant reminiscence of the Neolithic images of Knossos. The idols proper, three in number, were all of the female sex, of better fabric than the last described, and showing a slight glaze, like the contemporary painted vases. They are distinguished from the representatives of the votive class by the fact that they are only semi-anthropomorphic, the body in each case rising from a clay cylinder, which looks like a survival from the columnar form of the earlier 'baetylic' stones. Except for a small round hole the cylinders were closed below.

Two of these idols are of much the same type, though in one case the Goddess's head is turned on one side (Fig. 56, height 17·5 centimetres). The companion figure has a plant design painted on the back. A kind of pig-tail hangs down in each case from the back of the neck, and other locks are visible about the shoulders. The hands curve up over the breasts, as in the case of some figures from Mycenae. A type with a conical base, allied to these latter, extends to the Danube.¹

The most remarkable of these images, however, is a Goddess with both hands raised, one palm outwards, the other in profile, each with a dark band drawn across it. She seems to be clad in a kind of bodice, and wears necklaces and armlets, while on either wrist is a narrow circlet with a disk like that on the wrist of the Cup-Bearer. The meaning of this disk is sufficiently explained in the painting by the indication of agate veins, and here as there it evidently stands for an engraved lentoid gem. Round the top of the cylindrical base runs a zone of curved lines, like a succession of C's—a simple decorative motive which is very characteristic of the 'proto-Mycenaean' style of Knossos, and on which in turn it was taken over from the 'Middle Minóan' ware of the earlier Palace.² The figure is 22 centimetres in height.

But the most interesting feature of this image remains to be described. On the head of the Goddess, just as on the fetish columns of the more ancient Sanctuary described above,³ is settled a dove. I have elsewhere pointed out the religious importance of such conjunctions as indicating the

¹ Compare the figure in the Belgrade Museum found near Kostolatz (S. Reinach, *La Sculpture en Europe avant les influences Gréco-Romaines*, p. 31, Figs. 78, 79). It was found with a bronzemine vase of Bronze Age character showing spiral reliefs.

² For an example see above, p. 27, Fig. 13 &

³ See p. 29, Fig. 14.



FIG. 56.—IDOLS AND VOTARY OF PAINTED TERRACOTTA FROM SHRINE.

descent of the divine spirit on the earlier baetylic object of worship.¹ Here we see the dove-sanctified column become a 'Dove Goddess,' analogous to the gold figures found at Mycenae, the cylindrical base, however, in the present case preserving a record of the earlier columnar form. It is the same old Minōan cult in gradual course of transformation.

In direct relation with the Lady of the Dove stands a male figure, 17·2 centimetres in height, found on the opposite side of the base, who is holding out a dove as if to offer it to the Goddess, and must evidently be regarded as a votary. He stands on a small flat base and wears a loin cloth, recalling that of some votive bronze figures from the Dictæan Cave, and what looks like a tunic, laced behind. The figure is of solid clay, the colouring reddish-brown on a pale ochre, but with no trace of glaze.

But the central objects of cult in this small shrine were of the old 'baetylic' kind, to which even the semi-anthropomorphic images seem to have been subsidiary. The stucco horns representing the familiar cult objects elsewhere described by me as the 'Horns of Consecration,'² and which, as we have seen³ from the examples supplied by the terracotta Sanctuary, go back at Knossos to the date of the earlier Palace, are the regular accompaniment of the most ancient objects of cult. They appear at the base of Sacred Trees and Columns, and—what is still more pertinent in the present connexion—the sacred Double Axe is also seen rising from between the horns of this cult object, as elsewhere from between the actual horns of a bull's head. In my monograph on the *Mycenaean Tree and Pillar Cult* a design is reproduced from a painted vase found at Old Salamis, in which a double axe rising from 'Horns of Consecration' is seen between two bulls' heads with similar axes.⁴ Since then a remarkable illustration of the same ritual practice has been supplied by a painted larnax found at Palaekastro, Crete,⁵ upon which the sacral horns with the Double Axe are seen rising from a slab with columnar support, the fetish pillar and weapon being thus combined.

That the pair of sacral horns on the raised base of the Knossian

¹ *Mycenaean Tree and Pillar Cult*, p. 7 (*J.H.S.* 1901, p. 105), *The Dove Cult of Primitive Greece*. In another form we see a survival of this bird-inspiration in the Eagles carved above the twin pillars of the Arcadian Zeus Lykaios (*op. cit.* p. 29 [127]), or the Eagle engraved on the conical black stone of the Mountain God of Eresos, as seen on the coins of Helagabalus.

² *Mycenaean Tree and Pillar Cult*, § 15.

³ See above, p. 30 *sup.*

⁴ *Op. cit.*, p. 9, Fig. 3. [*J.H.S.*, 1901, p. 107.]

⁵ Found by Mr. C. H. Marshall, to be published in the present volume of the *B. S. Annual*.

shrine served the same religious purpose as those depicted on the 'larnax' and the vase is made evident by the following circumstance. Midway between the two horns in each case is a round socket for the shaft of the axe, and lest there should be any remaining doubt as to the character of the cult here represented, a small Double Axe of steatite (Fig. 57) was actually found resting against the left pair of horns. The miniature dimensions of this weapon preclude the possibility of its having been one



FIG. 57.—MINIATURE DOUBLE AXE OF STEATITE FROM SHRINE (*slightly enlarged*).



FIG. 58.—MINIATURE DOUBLE AXE OF BRONZE WITH GOLD PLATE ATTACHING (*slightly enlarged*).

of the pair set up in the sockets of the horns. These were doubtless of bronze, gold plated perhaps like the small double axes found in the neighbouring Treasure Chamber (Fig. 58), and, like almost all objects of metal, would probably have been carried off at the time of the final desertion of the site.

The small axe of steatite may be regarded as having a votive significance in the sense in which small images—in this case a fetish image—can be offered to the divinity. Its reduplicated ends are an interesting feature, and, like the pair of sacral horns, suggest a dual cult. It will be remembered that a similar reduplicated double axe appears in the field on the great signet of Mycenae between the seated Goddess and the descending warrior God.

The presence of the female idols on the same base as the Sacral Horns and Double Axe seems to show that this symbolic weapon was associated here with the cult of a Goddess as well as a God. A roughly engraved steatite lentoid found near the Court of the Oil Spout shows in fact an axe of the same reduplicated form in the hands of what appears to be a female divinity (Fig. 59). An interesting mould of schist found near Siteia in Eastern Crete¹ exhibits moreover in addition to Sacral Horns

¹ S. A. Xanthoudides, 'Εφ. 'Αρχ., 1900, p. 26 *seqq.* and Plates 3, 4.

and two Double Axes with curiously cusped sides—perhaps an outgrowth of the 'reduplicated' type—two figures of what again seem to be female divinities, each of which holds a Double Axe aloft in either hand. The accumulating proofs supplied by signets, gems, and seal impressions of the cult of a divine pair in Minóan Knossos, not infrequently associated with lions, make it probable that the cult of the Cretan Zeus was here linked with that of Rhea, the ruins of whose temple with its sacred Cypress Grove was pointed out at Knossos in later days.¹ The Double Axe, the proper emblem of the male God, was also common to the Goddess—just as in Asia Minor it survived in the hands of the Amazons—and



FIG. 59.—GODDESS WITH DOUBLE AXE ON STRATITE LENTOID (?)



FIG. 60.—CLAY SEAL IMPRESSION SHOWING DOUBLE AXE BETWEEN HORNS OF BULL (?)

there are indications that of the two it was Rhea who took the precedence in Minóan cult. This is quite in keeping with the surviving Cretan traditions of Rhea and the infant Zeus.²

In addition to the evidence supplied by the small Shrine, a whole series of recent finds within the Palace has brought the exceptional sanctity of the double-axe into additional relief. Mention has been made of miniature axes of gilt bronze from the Treasure Chamber, and of the seal with

¹ *Diod. Lib. V. c. lxxi. 1.*

² In *Mycenaean Tree and Pillar Cult*, p. 70 [*J.H.S.*, 1891, p. 168], I had already ventured to remark: 'It is probable that in Mycenaean religion as in the later Phrygian the female aspect of divinity predominated. . . . The male divinity is not so much the consort as the son or youthful favourite. The relationship is rather that of Rhea than of Hera to Zeus, of Adonis rather than of Ares to Aphrodite. . . . the God is either in the background as on the great Akropolis ring or holds a secondary place, as when he approaches the seated Goddess.'

the axe-holding Goddess. An interesting seal impression from the Court of the Oil Spout shows a bull's head with the sacred emblem worked in between its horns (Fig. 60), while on another impression from near the Room of the Archives, four double-axes are seen symmetrically grouped round a central rosette (Fig. 61). Fresh examples of Mycenaean pottery of the Palace style occurred on which ornamental figures of the Double Axe take the place of the ordinary decorative motives. In the rubbish heap of the South-East Court bordering the Court of the Sanctuary, moreover, fragments of clay vessels belonging to the earliest period of the existing Palace were found with this religious symbol incised on their handles.¹



FIG. 61.—CLAY SEAL IMPRESSION WITH FOUR DOUBLE AXES (1).

The overwhelming evidence now forthcoming of the importance in the Palace cult of the Double Axe, the Carian *labrys*,—emblem of the kindred Zeus of the Asianic regions—must be taken to supply strong support from the archaeological side for the connexion suggested by Kretschmer and Max Meyer on philological grounds of *labrys* and *Labyrinthos*. That the *labrys* symbol should be the distinguishing cult sign of the Minóan Palace makes it more and more probable that we must in fact recognise in this vast building—with its maze of corridors and chambers and its network of subterranean ducts—the local habitation and home of the traditional Labyrinth.

That the Labyrinth in Art was already known in the walls of the later Palace we have now the proof in an interesting discovery made in what appears to be the remains of a corridor on the terrace immediately below the East Portico of the Hall of the Double Axes. The fallen plaster here showed the remains of an elaborate series of mazes painted in a reddish brown on a white ground (Fig. 62). The Labyrinth figures here, though belonging to the same class, are more complicated than those on the archaic coins of Knossos, the Minotaur upon which is also, as has been shown in the last Report, an heirloom from Minóan times. A simple key or maeander pattern appears on some of the sealings found by Mr. Hogarth at Zakro. A still earlier example of the same class occurred in a magazine of the Earlier Palace together with fine 'Middle Minóan' pottery on the

¹ The only other mark found on the pottery here was a T sometimes placed on its side.

East slope. The source of these meander designs, and 'ultimately of 'the Labyrinth in Art,' will probably be found in a curious class of

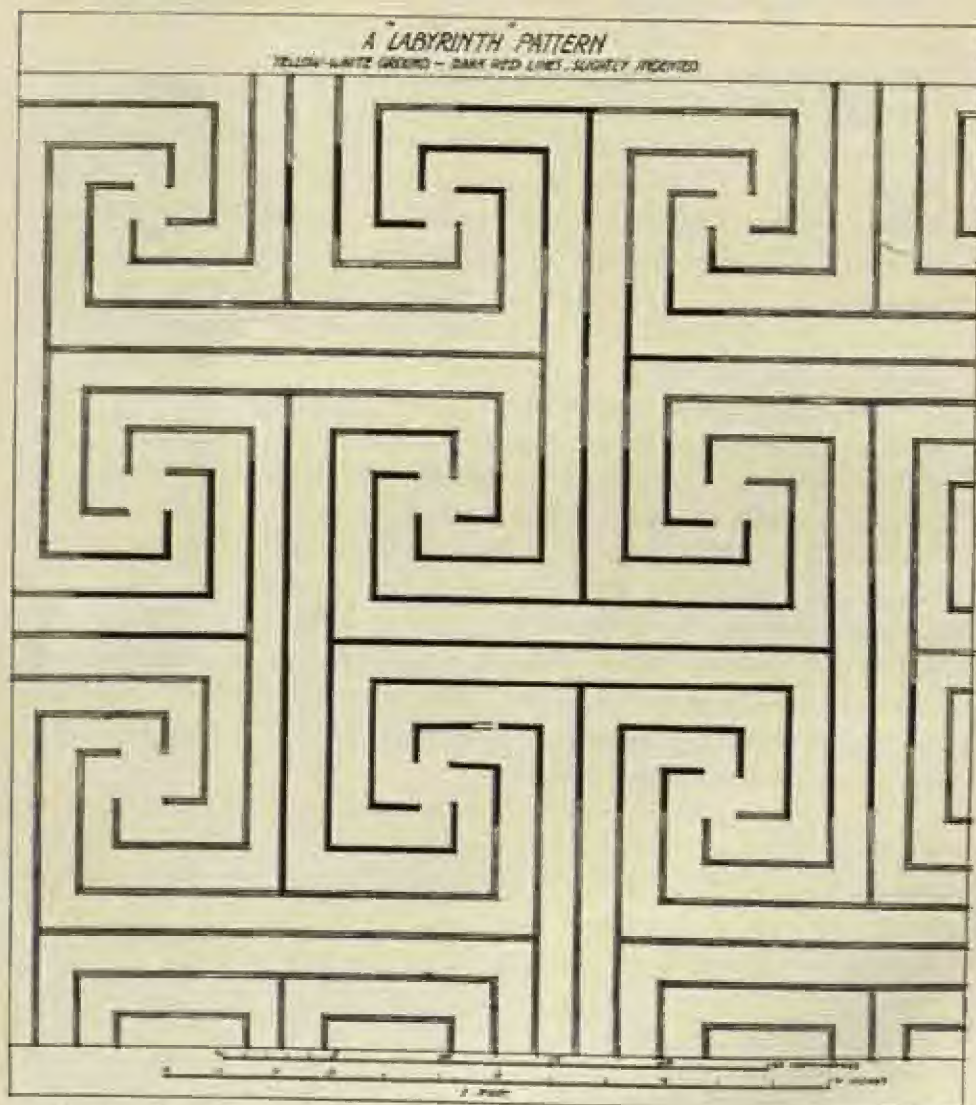


FIG. 62.—WALL-PAINTING CONSISTING OF LABYRINTH PATTERN FROM CORRIDOR E. OF HALL OF DOUBLE AXES.

Egyptian button-seals, dating from about the VIth and VIIth Dynasties, on which similar designs predominate.

Between the small Shrine and the Court of the Sanctuary were two square chambers of similar dimensions, one opening on the Court, which had been completely cleared of their contents. It is possible that there was originally—in accordance with the tripartite division visible in the Temple fresco and the Dove shrines of Mycenae—a group of three small cells devoted to a similar cult. From the presence of altars like those near the wall of the West Court and that by the Southern Propylaea as well as from other indications, it may be inferred that there were several similar shrines within the Palace area. Each quarter of the Palace may well have had its special sanctuary, and the Temple Fresco leads us to infer that some of these were more showy erections (though still of exiguous dimensions) than the humble cell of the South-Eastern region.

The contents, however, of the present Shrine derive a special interest from the decadent period to which the bulk of them belong, since they afford a convincing proof that essentially the same religious cult that we have seen illustrated by the terracotta Sanctuary from the Earlier Palace, survived to the very latest period of occupation. This religious survival can indeed be carried a step further in other parts of Crete. A close parallelism is visible between the cylindrical-based female images here brought to light and those from a shrine of still later date, found by Miss Harriet Boyd in the Mycenaean settlement at Gourniá, in the Province of Mirabello. The female images there found were of plain clay and much larger and coarser. They had snakes coiled about them and small attachments in the shape of the Sacral Horns. In this case, too, a plaster tripod had been placed in front of the figures. Still later and very rude versions of the same religious type were found by Dr. Halbherr in the Sub-Mycenaean cemetery of Priniá, near Gortyna.

§ 23.—SOUTH-EAST COURT AND RUBBISH HEAP.

South of the Court of the Sanctuary, on a lower terrace level, is another oblong Court or Yard, here called the South-East Court. It is enclosed by walls on three sides, that to the West supporting an ascending staircase of which some steps remain. This open space seems to have been largely used as a receptacle of rubbish, and the amount of ordinary clay cups of the Later Palace style found here at the beginning of the excavations in 1900 led the workmen to name it the *Kαφερσίον*. The deposit of pottery

included in its lower stratum many fragments of 'Kamáres' ware probably dating from the Earlier Palace. On the necks and handles of some of the plain pottery belonging to the early period of the Later Palace were found the marks already referred to in the shape of T's and Double Axes of earlier and later form. This pottery answers in fabric to the plainer vessels found in the Plaster Closets, and others from the North-East Magazines and elsewhere, and the close correspondence presented by some of the vases with those found at Phylakopi marked in a similar way is a significant sign of contemporaneity. A fragment, with traces of streaked colouring, in the style of the North-East Magazines, found in the same stratum of the South-East Court, is of interest as showing part of a graffito inscription, the characters of which though linearised seem rather to fit on to the Pictographic System.

§ 24—REMAINS OF EARLIER BUILDING TO SOUTH-EAST.

Immediately East of the South-East Court were excavated a series of deep chambers and cell-like compartments of simple construction, evidently



FIG. 63.—CLAY SEALING WITH SPINNET IMPRESSIONS SHOWING DESIGN DERIVED FROM THIRTEENTH DYNASTY SCARAB ($\frac{1}{1}$).

belonging to an earlier building, and, indeed, somewhat out of line with the Later Palace work immediately to the West of it. The floors of these chambers lay about 5 metres below the present surface and from about 3 metres down quantities of painted pottery of the Middle Minoan class were found. It was here that at a depth of 4 metres lay the dove vase found in 1900. With the pottery were also found a variety of clay sealings belonging

to the period of the Earlier Palace, some with decorative designs derived from the Thirteenth Dynasty scarab style (Fig. 63). Other sealings are of great importance as exhibiting groups of pictographic characters of early type. It thus becomes evident that this form of script was in vogue in the Earlier Palace. Fig. 64 shows an example of one of these impressions

with the bent leg, double axe and fish signs. Another sealing (Fig. 65) shows a double axe with a scale pattern.

These early chambers and cells were composed of rubble masonry, and square limestone doorposts took the place of the low bases supporting



FIG. 64.—CLAY SEALING WITH PICTOGRAPHIC SIGNS (f).



FIG. 65.—DOUBLE AXE WITH SCALE PATTERN (f).

wood and plaster door jambs, seen in the Later Palace. Some of the compartments here are mere walled pits about 1·55 metres N.S. by 0·80 E.W., and are perhaps largely foundation structures.

§ 25.—CUPS WITH INK-WRITTEN INSCRIPTIONS.

The upper part of the early constructions on the South-East, mentioned in the preceding Section, had evidently been made use of as basements for a wing of the Later Palace. Here were found various vases belonging to its early period, including two cups of quite exceptional interest. These cups, the relatively early date of which is attested by their forms still showing traces of the characteristic contour of the earlier Minoan painted class, were themselves of plain clay. The interior, however, was in both cases occupied by inscriptions in linear characters written in what appears to be a kind of ink of deep brown or blackish colour. The writing shows a cursive tendency, and there are some variations from the ordinary linear forms. I have therefore set beside my copy of one of the two inscriptions given in Fig. 66*a*—a rendering of it in the characters of the normal linear script (Fig. 66*b*). The existence of stops between some of the words or sentences will be noted.

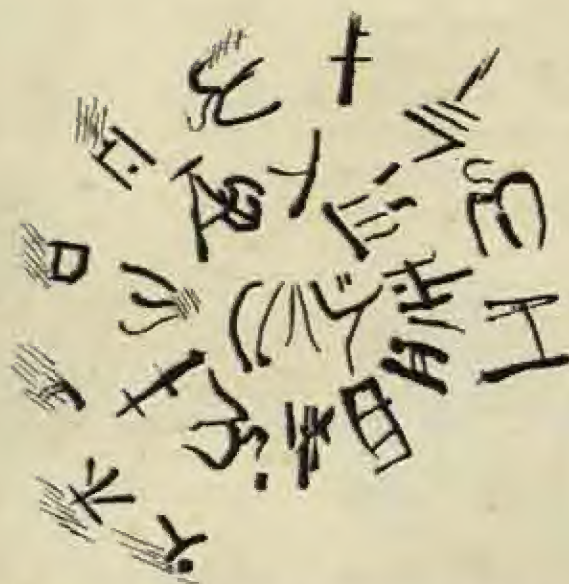


FIG. 66 a.—INK-WRITTEN LINEAR INSCRIPTION IN CUP.

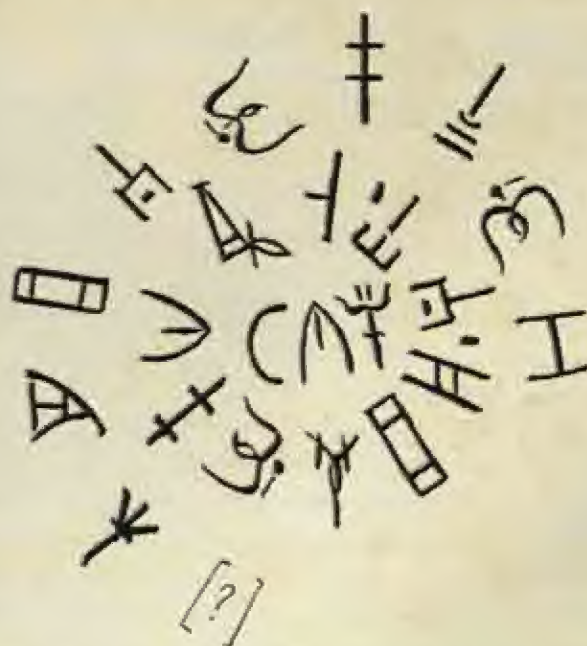


FIG. 66 b.—TRANSCRIPTION OF a IN NORMAL CHARACTERS OF THE LINEAR SCRIPT.

So far as appearance goes, the base of the ink used may have been sepia. It has been extraordinarily durable and so indelible that it was possible carefully to wash the inner surface of the cups. The lines of the letters show occasionally a tendency to divide, which may point to the use of a reed pen. As a whole the inscriptions present an extraordinary parallelism in their general character to those on Egyptian *ostraka*.

The great value of these ink-written inscriptions is that they give us the first direct evidence of the existence of literary materials in the Palace of Knossos other than the inscribed clay tablets. These specimens of penmanship are the work of practised scribes, who, writing in a different manner, had developed independent methods and forms, somewhat variant from that of the other school of scribes who wrote with a pointed instrument. The heaps of broken seals found in the Room of the Archives and elsewhere already suggested the inevitable inference that they had originally belonged to written documents the materials of which had perished. What these materials were it is impossible to say with certainty. Parchment may have been used, and the old Cretan tradition that palm leaves had once been used for writing should not be left out of account. In any case the proof that writing in ink was practised in the Minóan Palace opens out possibilities of the former existence of literary materials of a fuller kind than could be supplied by means of the clay tablets.

§ 26.—SOUTH-EASTERN ANGLE OF THE PALACE.

The exploration of the South-Eastern Palace region is still incomplete, and it must be sufficient here to give the briefest summary of the general results obtained.

South of the South-East Court is a group of chambers, one of which containing part of a *pithos*, is certainly a Magazine, while the South-Eastern angle is occupied by a square tower-like structure with abnormally thick walls. This group of chambers seems to form a connected whole, and is entered on the East side through an oblong room, larger than the rest, which forms a kind of entrance hall. Some rather elegant vessels of the late Minóan class were found here.

At the extreme South-Eastern angle a double staircase, one flight of which is preserved, runs down towards what may have been a postern gate on this side. On either side of the lower entrance passage of this staircase are two rooms built of good limestone masonry, that to the South

of oblong shape, being lined with gypsum plaques like the North Bath. The other is a square room with a square stone pillar standing on a low base in its centre. In the entrance passage between the two rooms were brought to light important bits of wall painting consisting of olive or myrtle sprays and the group of lilies already referred to. A small fragment showing grass in seed is also of singularly naturalistic execution. In the same area also occurred bits of painted pottery in the fine Later Palace style, and an ivory knot similar to the porcelain example from the Fourth Shaft Grave at Mycenae. Here, too, was found a small columnar shaft of porphyry-like material, round which runs a spiral band relieved with a continuous decorative design of a kind also found on the Palace vases.

It is to be noted that the group of structures about the South-Eastern staircase is set at a somewhat different angle from that of the rest of the Eastern Palace wing. This abnormal orientation is almost certainly accounted for, however, from the fact that this angle of the building lies on the edge of a steep bluff, and that it was therefore found convenient to follow the contour of the ground. It must be regarded as an integral part of the Palace.

§ 27.—EASTERN WALL-LINES AND BASTION WITH DESCENDING RUNNEL

On the lower terrace a little East of the East Portico of the Hall of the Double Axes came to light the foundations of two parallel walls perhaps belonging to a Corridor. It was here that the 'Labyrinth fresco' was discovered; and a little North of the same spot lay large fragments of a plaster dado showing a pale yellow ground realistically decorated with veins in various shades of reddish brown in imitation of marble.¹

Parallel with the remains of the Corridor, and about a metre and a half East of it, a double line of wall, the foundation courses of which alone were preserved, runs from North to South. These were evidently terrace walls, and seem to represent the limits of the Palace in this direction.

It is true that about 12 metres below the point where the traces of this double wall temporarily cease in a Northerly direction, parts of a walled angle are visible which seem to represent some projecting spur of the

¹ See Fyle, *R.I.B.A. Journ.*, 1902, p. 112, Fig. 13.

Palace, or a covered line of approach to its no longer visible Eastern Entrance. But the true continuation of this double wall-line is to be found in two terrace walls with a similar narrow space between them that form the Southern and Western sides of a curious Eastern Bastion, to be described below, and prolong their course thence towards a point probably representing the north-east angle of the Palace.

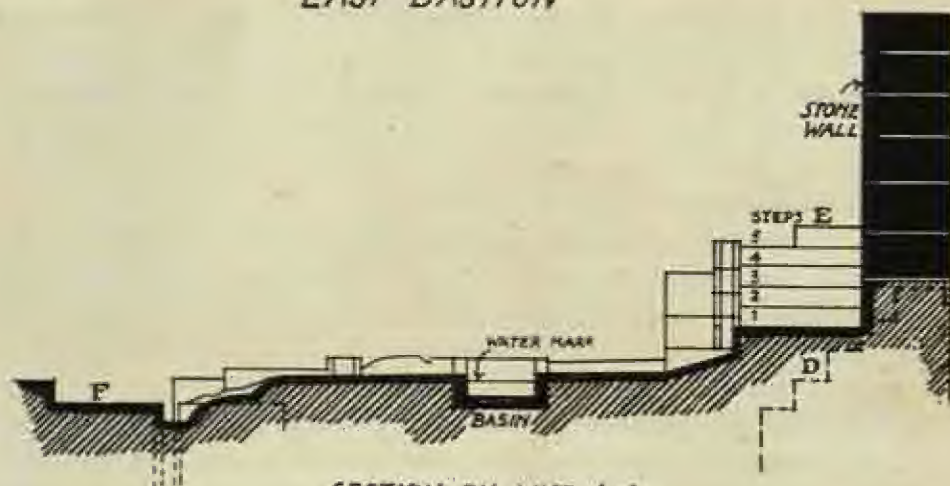
The Southern part of this Bastion seems to have contained a double staircase, the steps of the upper flight of which have disappeared. This upper flight led to the terrace above and thence in the direction of the Court of the Oil Spout. On the lower part of this staircase there was apparently a double landing with two or three intermediate steps connecting the two flights, as in the case of the Quadruple Staircase. Of these landings the lower only has been preserved, and from it a small flight of five steps leads down to a stone terrace having itself two slight steps at either end. From this terrace again, about 5 metres on, another flight, of which only two steps and part of a third are preserved, descends in an Easterly direction (See Plan, Fig. 67 and Fig. 69).

But the most interesting feature of the whole is the water channel that accompanies the stairs. The steps themselves are a metre wide, but between them and the outer balustrade of the staircase is a space of 25 centimetres occupied by a stone runnel, the construction and arrangement of which shows extraordinary skill in dealing with running water. Its stone channel instead of accompanying the descending flight of stairs in one continuous slope, as might have been supposed, follows the successive gradations in a series of curves. (See Section BB, Fig. 68.)

The effect of these descending curves is to put a repeated check on the rush of water. The curves themselves almost exactly agree with the natural parabola which water on falling would execute. There is thus a series of leaps instead of one, and the water flowing over a succession of curves is subject to friction which reduces its velocity. The current thus reaches the critical point, the sharp turn namely at the bottom of the stairs, with an impetus much inferior to that which it would otherwise have accumulated from the unbroken descent. The force of the water being in this way diminished, it was less liable to overflow the pavement at the bottom of the flight of stairs. The hydraulic science displayed by this device is such as to astonish the most competent judges.

But this is not all. At the bottom of the flight of stairs where the

KNOSSOS. EAST BASTION



SECTION ON LINE A-A.
THRO' WATER CHANNELS & BASIN

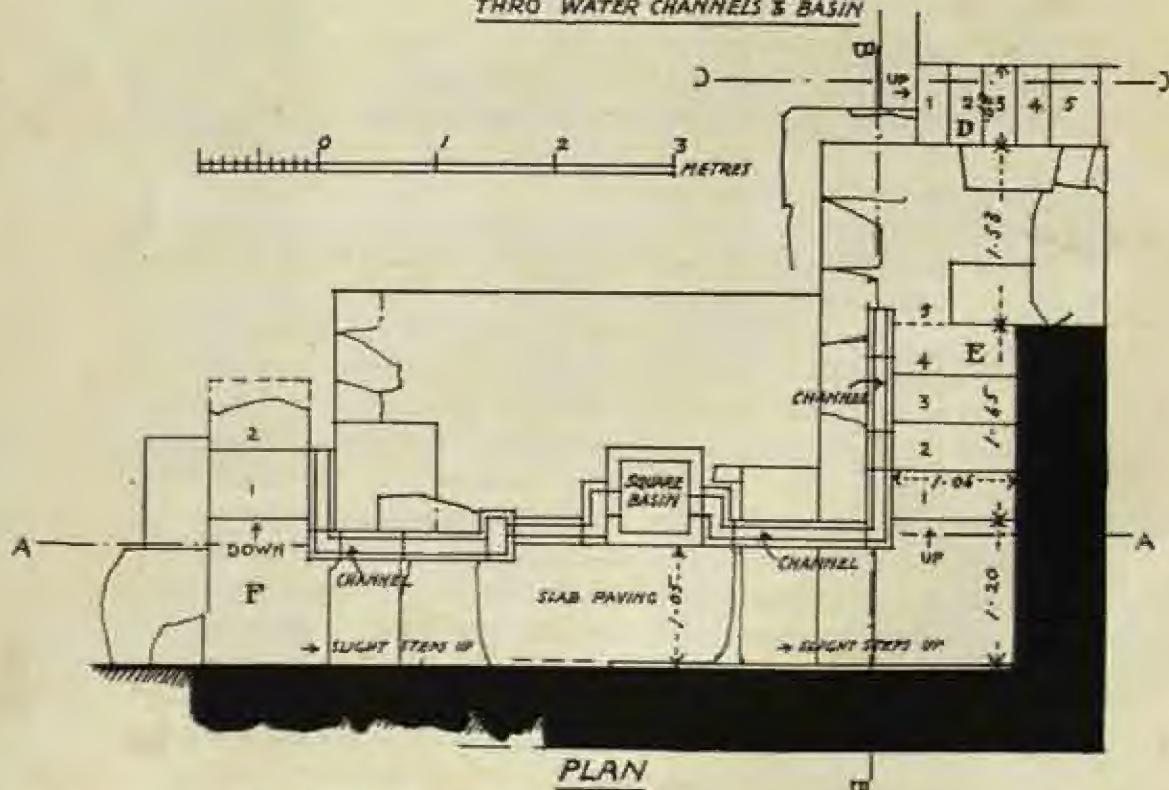


FIG. 67.—PLAN OF EAST BASTION WITH SECTION ON LINE A-A.

· KNOSSOS ·
EAST BASTION

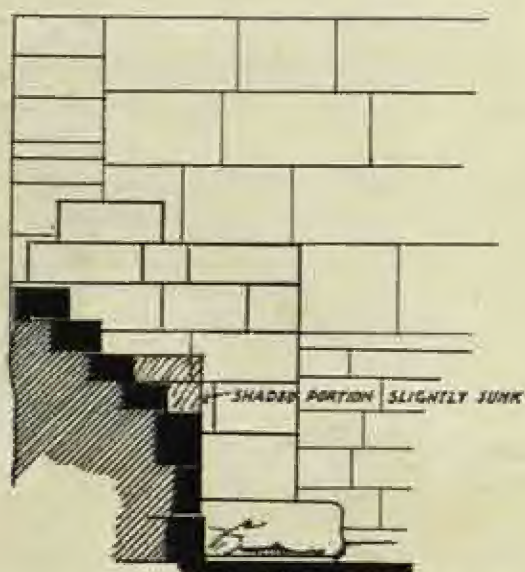
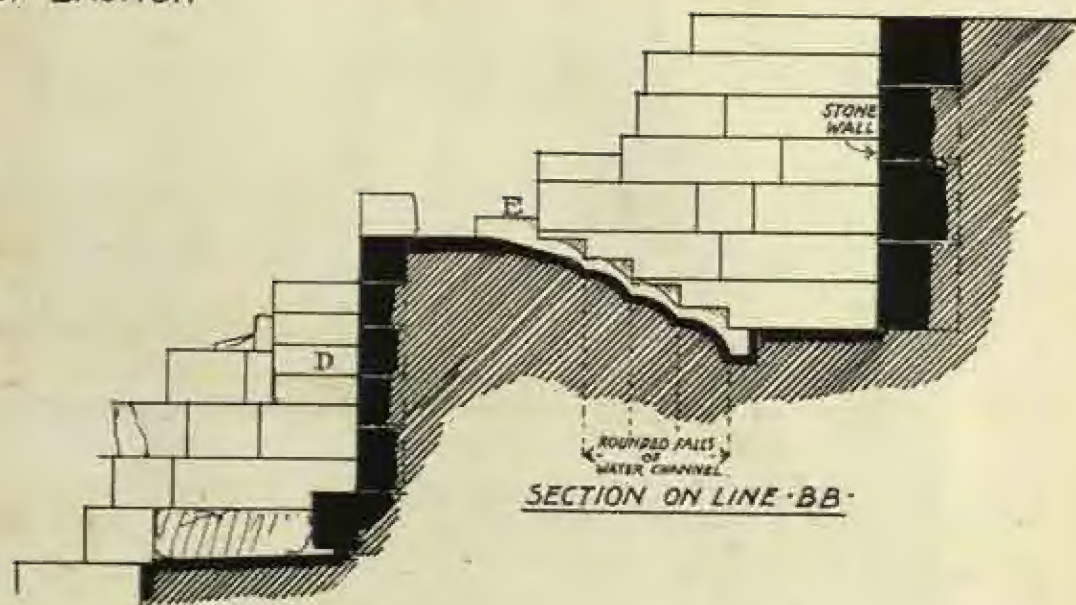


FIG. 68. —SECTIONS OF EAST BASTION ON LINES B—B AND C—C.

runnel takes a sudden turn to the right the channel is deepened so as better to accommodate the inrush of the current, and the water is further drawn away from the possible point of overflow by a sudden downward slope of the channel.

It appears that the water was ultimately wanted for some tank below which it was desirable to keep clear. Accordingly the level part of the course along the small terrace was taken advantage of to form a small catch-pit, for the deposit of sediment, in the shape of a shallow square basin, which could easily be cleaned out when necessary. In order to secure a certain local retardation of the current, moreover, favourable to the precipitation of sediment, the runnel instead of proceeding directly to the basin makes a double bend, repeated in its continued course beyond. In the angles of these bends as well as in the small catch-pit itself the sediment according to well-known laws would have a tendency to be deposited. The extraordinary point is that these laws should have been known to the Minóan architect.

The runnel now proceeds by two more elongated curves, answering to the low steps at the further end of the terrace, to the point where it turns Eastward by a continued curving course down the further flight of steps, of which only the uppermost are preserved.

In the North face of the wall, immediately beyond the Bastion down which the runnel descends, are visible five steps of a smaller staircase (D in the Plan and Section and Fig. 69), which display the peculiarity that they suddenly break off, leaving a drop of 1.20 metre to the paved floor level below. The possibility suggests itself that the level of the lowest step may represent the water level in some kind of tank, supplied, in part at least, by means of the runnel that accompanies the other stairs. Two courses of a wall are in fact visible about a metre East of the smaller flight of steps, which seems to have represented the containing wall of the basin on that side. There are also traces of its North Wall.

The platform of masonry with the larger stairs and runnel is not jointed into the main terrace wall behind, and, though doubtless contemporary with it, forms, so far as its construction goes, a kind of annexe to it. It is built of smaller blocks than the others, several of which show incised signs belonging probably to the latest Palace Period.

The terrace wall itself is backed, as already noted, at an interval of only a few centimetres by another rougher wall, and this double line,

Landing of
stratified W.
↓
Continuation South of
Eastern Wall (Lion)
↓ ↓ ↓ ↓ ↓

Wall (IV)
within
Wall (II).
↓

Original Outer
Wall to East
with Plinth
(IIa)
↓ ↓

Remains of
Trench Wall
(II, I) backing
later Outer
Wall (I)
↓ ↓

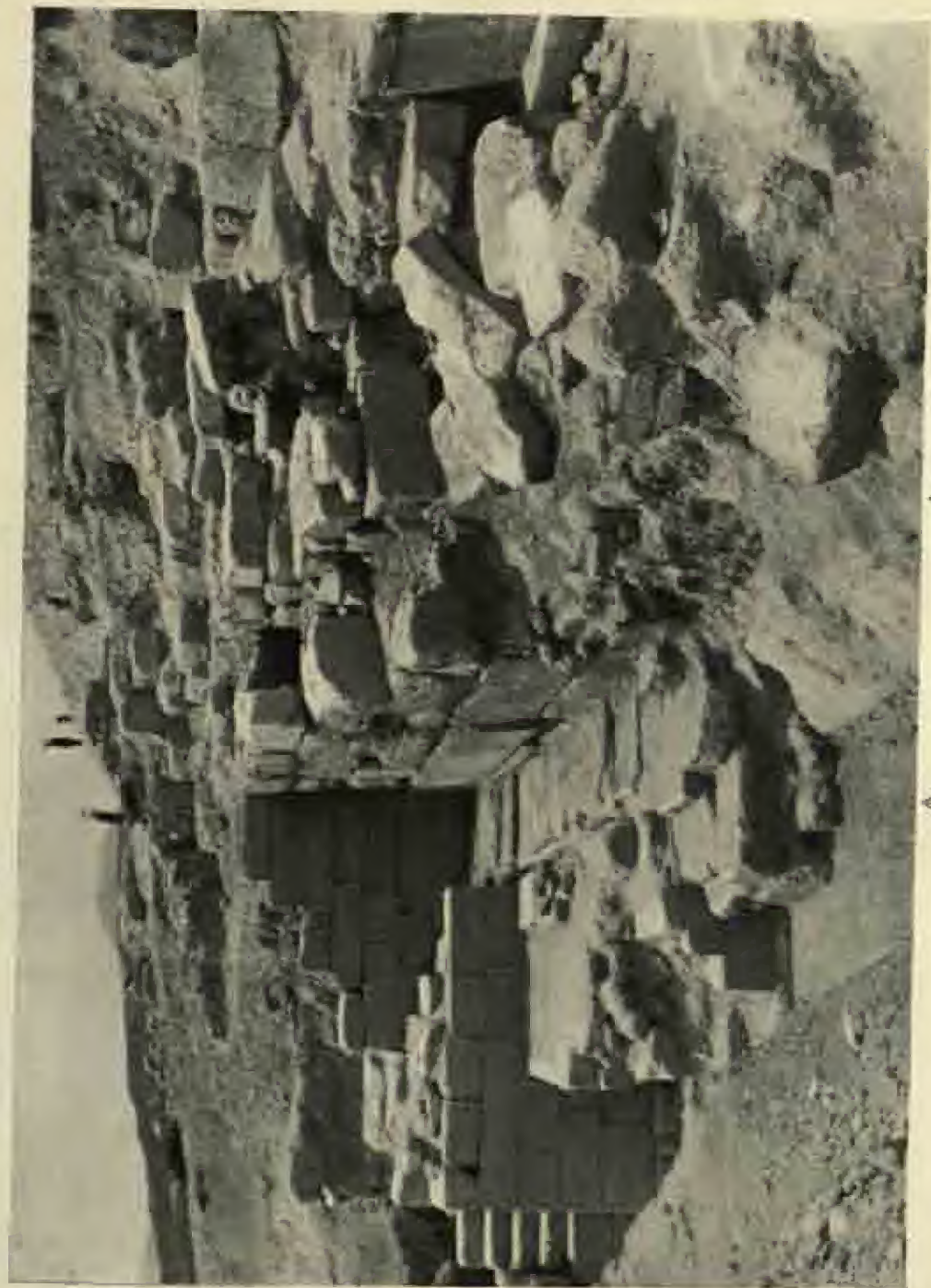
Outer Wall
to East (I)
↑

Winter Kennel
and Catch-pit.
↑

FIG. 89.—VIEW OF EAST BASTION AND REMAINS QUADRUPEL LINES OF WALLING BEHIND IT.

Small stratified
mass D.
↑

Lowermost
slope
↑



though partly in a ruinous state, can be traced for about another twenty-five metres beyond the East Bastion. The outer of these two walls alone has a face, on the Eastern side, the inner wall being constructed entirely of roughly finished blocks. This dual arrangement which characterises what may be regarded as the Eastern boundary line of the Palace, also reappears in the case of the Western Wall of the deep-lying central region of the East side of the Palace, that, namely, which borders the Quadruple Staircase, the Court of the Distaffs and adjoining rooms. The object, especially visible in the latter case, is to protect the second of the two walls from damp by interposing an air-space between it and the true terrace wall. At the same time certain points of contact between the inner and outer walls of the system gave the whole a measure of unity as a supporting wall. The Minôan architect showed in other ways a special genius in protecting the main halls of the low-lying part of the building against damp. It will be seen by referring to the Plan on p. 56, that the whole 'Domestic Quarter' of the Palace and the adjoining halls are not only protected by the double wall and air-space to the West, but are flanked to North and South, where there was also an earth cutting, by corridors, light areas, and blocks of masonry containing drain or ventilating shafts.

Almost immediately behind the second line of the East Wall is another wall, traceable, in part only by its foundations, for a distance of about 30 metres beyond the East Bastion. This wall is constructed of large limestone blocks and has a good facing on its Eastern side, showing that it was originally intended to be visible. It follows that the rough wall in front of it and the outer wall-line in connexion with it are of later construction. The third wall-line would then represent the original terrace wall, which was afterwards supplemented, owing probably to its having fallen into a ruinous state, by the two outer lines with foundations, at a somewhat lower level. There are also remains of a fourth inner line of wall at a mean distance of about a metre within the earlier terrace line represented by the third wall (see Fig. 69).

This quadruple line of wall may be taken to represent the Palace boundary on this side and is evidently the continuation of the similar system visible West of the East Bastion. Further Eastwards, owing to the denudation of the slope, the traces of these walls dwindle to vanishing point, but there are strong indications that these remains very nearly reach the extreme North-West corner of the building. A distinct Northern

boundary line is in fact visible, which would have met the Eastern Wall at a point about 35 metres from the East Bastion. The first section of this line on the slope above is supplied by the remains of an existing wall by the North-East Postern. East of this—following the Northern boundary of an earlier group of buildings to be referred to in the next Section—is a cutting as if for a roadway, which was found choked with tumbled blocks, apparently derived from a line of outer walling that had originally surmounted it.

It is true that immediately North of this cutting are remains of a block of buildings consisting partly of magazines with *pitthoi* of the advanced Mycenaean class, together with other constructions belonging largely to the period of the Earlier Palace. These structures, however, seem to be at most of the nature of dependencies to the main building.

§ 28.—STORE-ROOMS OF EARLIER PALACE, WITH PAINTED VASES OF EGG-SHELL FABRIC.

In the angle included between the Magazines of the Knobbed *Pitthoi*, the Eastern Wall-lines and the cutting to the North mentioned in the last Section, the remains of the Later Palace have almost entirely disappeared. This is no doubt largely due to the natural denudation of the slope of the hill, but the remains of a kiln found here belonging to the Roman period may indicate that some of the good material on this side was artificially destroyed.

To compensate, however, for the disappearance of the later Minōan structures within this area, a whole series of chambers belonging to the earlier building were here brought to light, in part beneath the level of the Roman kiln. The walls were of the same simple rubble construction as those of the primitive chambers near the South-East corner of the Palace. The rooms were small, with narrow door openings, and there appeared to have been a gallery on their Western border. Two points in regard to these structures were specially noteworthy. Although obviously of an earlier date and built according to a more primitive method than the Later Palace, the orientation of their main lines, both from North to South and from East to West agreed with the later plan. It was also evident that some of the chambers had, at a time when their original floor levels had slightly risen, been used as basement stores by the occupants of the Later Palace.

In one case piles of vessels similar to those of the North-East Magazines had been placed on a floor level only a few centimetres above layers of finer vases belonging to the earlier Minóan Period.

As a rule, however, the difference of level was very decided, and the following was the usual stratification brought to light.

1. At or near the surface level a disturbed clayey deposit with pottery answering to classes found in the Later Palace, including the Period of Re-occupation. This goes down 1.25 metres.
2. A stratum 12 centimetres deep full of wood ashes packed with Late Minóan (Kamáres) sherds similar to those below the Room of the Spiral Fresco (see p. 26, 27).
3. A pale clayey stratum 20 deep with a few sherds of the same general character as the last.
4. A deposit 45 centimetres thick of wood ashes with the remains of Minóan painted vases of the finest fabric. This deposit rests on a stamped clay floor-level about 1.88 from the present surface.

It was evident that the bulk of these chambers had been store-rooms for pottery of a very remarkable quality. Although from the extreme delicacy of the fabric of a large proportion of the vessels the mere weight of the superincumbent deposit seems to have been enough to crush them, it has been possible to put together a series of vessels in a fairly complete form with results that throw an entirely new light on the high perfection of ceramic art already reached in what may be best described as the Middle Minóan Period.

The vases from these chambers consisted for the most part of bowls and cups, with or without handles, of great variety and elegance of form. Their very fine fabric, often as thin as egg-shell china, as well as some of their contours, suggest originals in metal work, and some of them are adorned with embossed decoration evidently copied from the *repoussé* designs of cups in precious metals. The slight metallic lustre occasionally visible on the black ground of these vases helps to enhance this comparison.

The colours are generally vermilion red, orange, and white, on a black ground. Sometimes, however, the ground is a bright brick-red, as in the case of some beautiful bowls adorned with white asterisks. More rarely the ground is pale buff with dark brown decoration—a style which anticipates the prevailing fashion of the Later Palace Period. A cup with white

leaf ornaments on a dark ground round its walls and the same decoration in dark brown on a white ground on its base illustrates the transition between the two usages.

It is impossible here more than to refer to these exquisite ceramic types, which will be more fully illustrated in Dr. Duncan Mackenzie's account of the Knossian pottery in the forthcoming number of *The Journal of Hellenic Studies*. A good example of a cup with a fine metallic outline is given in Fig. 70. It shows a simple geometrical decoration—white with small red disks on the black ground—resembling a succession of narrow plates with studs or rivets; the handle, part of which only is preserved, is about two centimetres broad, but so slender that it must have been used with great precaution. The cup reproduced in Fig. 71¹ is one of the most beautiful ceramic productions of the Minóan or any other age. It is light in make and spontaneous as a bubble, and the design it bears, the calix of a water-lily as it floats on the surface of a pool, is in keeping with the lightness of form. The idea of this decoration may have been suggested by a lotus vase of Egypt, but the floral motive is here more delicately treated.² The outer leaves of the calix are black with a central vein of red, the inner petals white, and the whole upper margin of the corolla is outlined against a red background.

It is to be observed that the divergent spiral and several other designs on the cups and bowls from these early store-rooms, like the contemporary Cretan seals, show distinct traces of the influence of Egyptian motives of the Twelfth and Thirteenth Dynasty Period. The character of the decoration is geometrical, and plant forms where they occur are treated in a more or less geometrical manner. There is nothing here of the untrammelled naturalistic style which characterises the art of the Later Palace.

§ 29.—FRAGMENTS OF BOWLS OF DIORITE AND LIPARITE OF EARLY DYNASTIC EGYPTIAN FABRIC

The high level of civilisation attained at Knossos by the date of the Middle Kingdom of Egypt is well illustrated by the beautiful ceramic

¹ Both of these illustrations are from black and white drawings by Mr. Theodore Fyfe.

² The same design in a coarser form is applied to a characteristic series of Cretan stone bowls of the type figured in *Cretan Pictographs*, &c. (Quaritch, 1895) *Reprint of H. Osnapian*, p. 123, Fig. 123. A variety with a double calix was found in the North doorway of the Hall of the Double Axes (see above, p. 39).

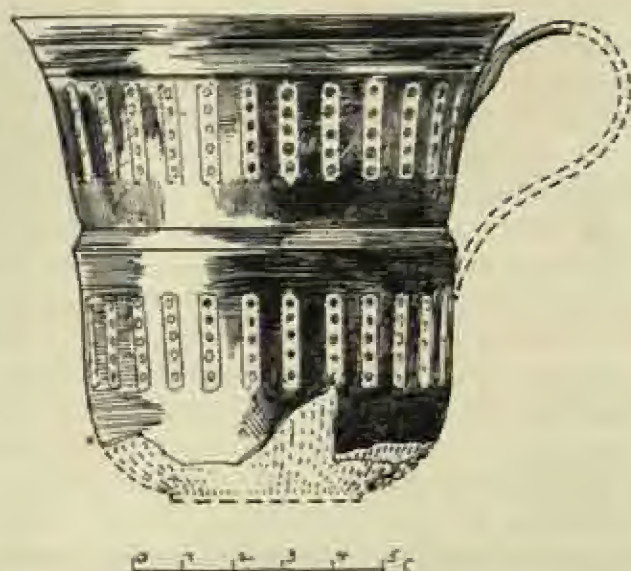


FIG. 70.—PAINTED CUP OF METALLIC OUTLINE: MIDDLE MINOAN.



FIG. 71.—CUP WITH WATER-LILY DESIGN: MIDDLE MINOAN.

products described in the preceding Section. But the exquisite technique of these painted vases itself implies a very extensive period of earlier development. On the Palace site, moreover, and notably in the deep-lying early chambers on the South-East (see above, p. 106), were found remains of vases typologically at least anterior to the developed 'Middle Minóan' class. The decoration on these, consisting of chevrons and dots in reddish-yellow and white on a black ground, simply represents the taking over of the incised and punctured decoration of the advanced Neolithic style, where the white and orange inlays in the burnished black 'bucchero' already anticipate the system of colouring.

Already in 1895 certain forms of Cretan stone vases had led me to seek comparisons in Old Kingdom forms, notably those of the Fourth Dynasty.¹ The most characteristic of the Cretan bead-seals—the prism-shaped—find their prototype moreover in a black steatite example found



FIG. 72.—FRAGMENT, AND RESTORED SECTION, OF DIORITE BOWL, FROM EARLY PALACE.

at Karnak, the subjects on which are allied to those of a peculiar class of cylinders of the same material belonging to the earliest Dynastic period.² Several of the traditional figures of Cretan intaglios, moreover, such as the Minotaur itself, go back to the same cycle. The influence of another class of seal, of button shape, frequent about the VIth and VIIth dynasties, and on which the maeander design, the prototype of the 'Labyrinth in Art,' is specially frequent, has also to be taken into account.

The excavations of 1902 have now supplied in a fragmentary but conclusive form the evidence of actual imports from the Nile Valley belonging to the early Dynastic Period.

Among some debris from the South wall of the Store Room containing

¹ *Sepulchral Deposit of Hagior Onuphrios in Cretan Pictographs, &c.* (Quaritch, 1895), pp. 117, 118).

² *Further Discoveries of Cretan, &c. Script* (J.H.S., xvii. 1898, p. 362, seqq.).

the 'false-spouted' jars of the earliest period of the later Palace (see above, p. 88) occurred a beautiful fragment of a shallow finely profiled bowl of translucent diorite (see Fig. 72). The circumstances of the find sufficiently indicate that the fragment belonged to an earlier date than the Later Palace, but the evidence goes far beyond this. Both form and material show that the vase to which the fragment belonged was of the finest Egyptian fabric, and in the opinion of the most competent Egyptologists¹ the probable date of its manufacture goes back to the period of the IVth Dynasty (c. 4000-3700 B.C.), while it cannot be later than the VIth (c. 3500-3330 B.C.). As a matter of fact the fragment so closely resembles the material and contour of a diorite bowl in the Ashmolean Museum (see Fig. 73) from the tomb of the first Fourth Dynasty King Sneferu (c. 3998-3960 B.C.) that it might almost have been broken from it. The diorite is of the most exquisite kind, such as is found in the royal tombs.

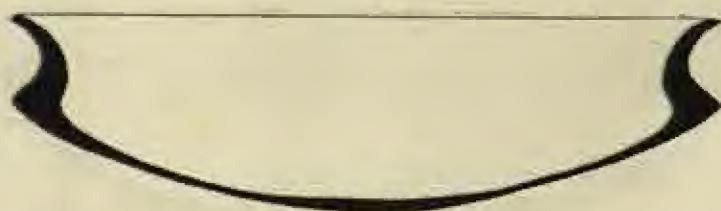


FIG. 73.—SECTION OF EGYPTIAN DIORITE BOWL FROM TOMB OF KING SNEFERU, OF THE FOURTH DYNASTY.

Nor does this evidence stand alone. On the East slope, near the early Store Rooms containing the 'Middle Minóan' pottery, but in disturbed earth, was found another fragment of a bowl of the same type, though of somewhat more carinated profile (see Fig. 74), cut out of a peculiar speckled variety of volcanic glass. The material, which is semi-transparent, has been examined by the eminent mineralogist, Professor H. A. Miers, and proves to be the very distinct variety known as liparite and derived from the Aeolian Islands.² This form of obsidian is unknown in the Aegean, and it appears to be unlikely that it could at any period have

¹ Professor Petrie considers it to be of the Fourth Dynasty and in no circumstances later than the Sixth. Professor Wailemar Schmidt, of Copenhagen, considers that these bowls were made during the Fourth Dynasty, and that though they may have been in use during the Fifth Dynasty it is impossible to bring them down to a later date.

² This conclusion is confirmed on the geological side by Professor W. J. Sollas.

been found there.¹ A few other fragments of the same material have occurred in the Palace strata at Knossos, including part of a lentoid intaglio dating from its latest period. From the earliest Neolithic times onwards, however, the obsidian in general use was the fine black quality such as is found in such profusion in Melos. It is, moreover, a remarkable fact that though the form and finish of the bowl to which this fragment belonged, proclaim it to have been of early Dynastic Egyptian fabric, the obsidian vases, hitherto found in Egypt itself, are of a material answering to the ordinary Aegean class. It is possible that the Italian variety offered greater facilities for cutting out vessels of comparatively large dimensions. The obsidian vases found in tombs belonging to the first Dynasties at Abydos are of more compact type, and to cut out a delicate bowl from the Aegean material might well have baffled human

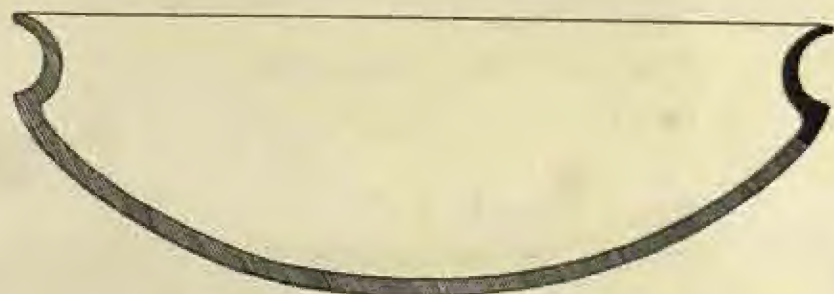


FIG. 74.—FRAGMENT AND RESTORED SECTION OF LIPARITE BOWL.

skill. As it is the bowl from which the fragment has been derived with its finely profiled outline and exquisitely slender fabric must have been a prodigious *tour de force*.

In Professor Petrie's opinion the sharply characterised form shows that this liparite bowl cannot be later than the IVth Dynasty. Coupled with the finding of the fragment of the diorite bowl, it is not too much to say that the discovery throws an entirely new light on the external relations of Minōan Crete in the early centuries of the Fourth Millennium B.C. It would appear that maritime intercourse was already opened up with Italy as well as the Nile Valley, and it is difficult to avoid the conclusion that Cretan mercantile intercourse already supplied Egypt, not only with the Aegean type of obsidian, but with the rarer quality derived (perhaps

¹ This is Professor Miers' opinion.

by means of the later Ionian coasting route) from the Aeolian Islands. The Minóan ruler seems to have received in exchange some finished products in the shape of vessels both of the finest Egyptian material and of the liparite that his own maritime enterprise had secured for Pharaoh. The alternative hypothesis that either class of bowl was made in Knossos by Egyptian lapidaries seems less consistent with general probabilities.

ARTHUR J. EVANS.





IVORY FIGURE AND HEAD FROM KNOSSOS.



IVORY FIGURE AND HEAD FROM KNOSSOS.

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